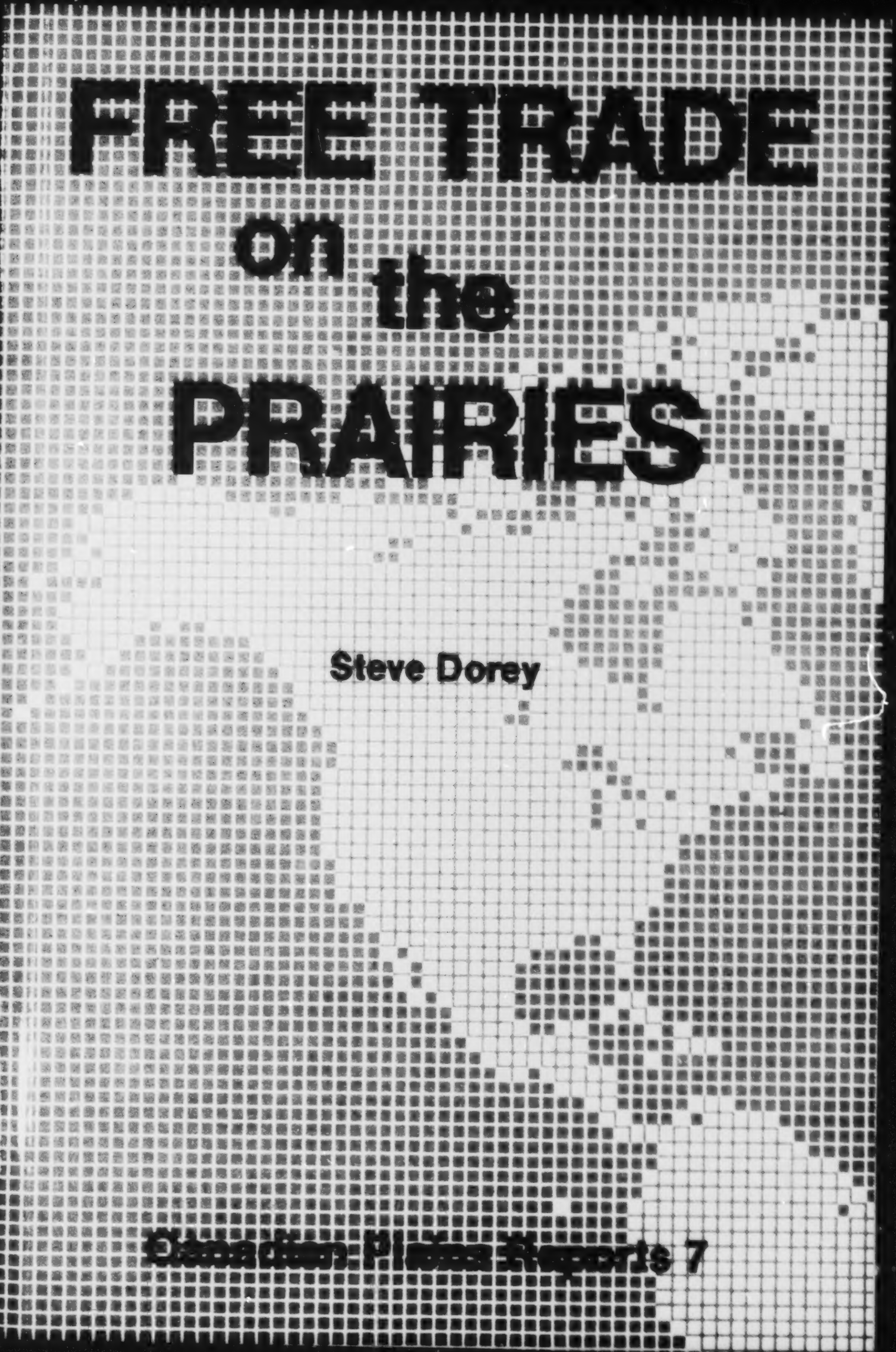


FREE TRADE on the PRAIRIES

Steve Dorey

Canadian Plains Reports 7

89-02713/

FREE TRADE
on the
PRAIRIES

Free Trade on the Prairies:
The Implications of the Canada-U.S. Trade Pact for the Three Prairie Provinces

Steve Dorey

Canadian Plains Research Center, 1989

This report is based on a study which was funded, in part, through a contract with the Department of Regional Industrial Expansion.

The author alone bears responsibility for the content of the report.

© University of Regina, Canadians Plains Research Center

Canadian Cataloguing in Publication Data

Dorey, Steve, 1949 -

Free trade on the prairies: the implications of the Canada-U.S. trade pact for the three prairie provinces

1st ed. —

(Canadian Plains reports, ISSN 0384-8930; 7)
Bibliography: p.
ISBN 0-88977-054-9

1. Free trade — Canada. 2. Free trade — United States. 3. Canada — Commerce — United States. 4. United States — Commerce — Canada. 5. Prairie Provinces — Economic conditions — 1945-*. I. University of Regina. Canadian Plains Research Center. II. Title. III. Series.

HF1766.D67 1988 382.971'073 C89-098011-X

Printed in Canada by the University of Regina Duplicating Services

Contents

Chapter I: Introduction 1
- 1.1 The Evolving Prairie Economy 1
- 1.2 The Changing World Economy 4

Chapter II: The Agreement - Preliminary Observations 9
- 2.1 Tariffs 11
- 2.2 Quantitative Restrictions 12
- 2.3 Binational Disputes Settlement 13
- 2.4 Future Trade Laws 15
- 2.5 The Working Group 16

Chapter III: Sectoral Effects 21
- 3.1 Agriculture 21
  - 3.1.1 Grains 24
  - 3.1.2 Red Meat 26
  - 3.1.3 Dairy and Poultry 27
  - 3.1.4 Marketing Boards 28
  - 3.1.5 Other Provisions 29
- 3.2 Other Resources 29
  - 3.2.1 Petroleum 30
  - 3.2.2 Natural Gas 32
  - 3.2.3 Petroleum Services 33
  - 3.2.4 Electricity 34
  - 3.2.5 Potash 35
  - 3.2.6 Uranium 36
  - 3.2.7 Forest Products 37
- 3.3 Manufacturing 38
  - 3.3.1 Steel 39
  - 3.3.2 Beer 40
  - 3.3.3 Petrochemicals 41
  - 3.3.4 Farm Implements 41
  - 3.3.5 Clothing 42
  - 3.3.6 Fabricated Metal Products 42
- 3.4 Services 43
  - 3.4.1 Business Services 44
  - 3.4.2 Banking and Financial Services 45
  - 3.4.3 Culture and Broadcasting 47
  - 3.4.4 Telecommunications 47
  - 3.4.5 Transportation 48
  - 3.4.6 Other Services 48
- 3.5 Investment 49

3.6 Sovereignty 50
3.7 Social Problems 50

Chapter IV: Economic Consequences of Freer Trade 55
4.1 Interindustry Specialization 56
4.2 Intraindustry Specialization 57
4.3 Producer Cost Savings 59
4.4 Consumer Price Changes 59
4.5 Increased Competition 60
4.6 Changes in Relative Prices 61
4.7 Assured Access 62

Chapter V: Free Trade Enquiries 65
5.1 Economic Council of Canada 65
5.2 Macdonald Commission 68

Chapter VI: The Research 71
6.1 General Equilibrium Studies 72
6.2 Industrial Organization Studies 77
6.3 Integrative Models 80
6.4 Econometric Studies 87
6.5 Employment Studies 92

Chapter VII: The Regional Pattern of Trade Adjustment 97
7.1 Theoretical Problems 97
7.2 Regional Studies 99

Chapter VIII: Conclusions 107

Appendix A: Estimating Consumer Benefit 115

Bibliography 121

TABLES AND FIGURES

Tables

1 Industries of Growing Importance 1971-1984 2
2 Prairie Employment Patterns 1961 and 1987 3
3 Jobs Created in Selected Service Industries 1971-1981 4
4 Canadian and U.S. Bilateral Tariffs 10
5 Employment Weights in Manufacturing 38

Figures

1 Canadian Merchandise Trade Balance-Exchange Rates 67
2 Factor Endowment 111
3 Industrial Organization 112
4 Consumer Model 113

ONE

Introduction

Over the past two years, attitudes on the Prairies concerning free trade and a bilateral trade agreement with the United States have been documented and examined in a number of ways by a variety of groups and institutions. Public opinion polls, government-sponsored public hearings, and detailed industry-by-industry consultations have all led to the same conclusion: there is no consensus on the Prairies concerning the desirability of bilateral free trade with the United States. There is, rather, a diversity of expectations and concerns.[1]

To those familiar with the history of the Prairie region, this conclusion may come as a surprise as support for "free trade" has been an article of political faith since the closing decades of the nineteenth century.

International trade has long been the lifeblood of the Prairie region. The west has historically viewed protection in Canada as a device designed to transfer wealth generated by world-class resource exporters competing freely in world markets to eastern manufacturers who had neither the ability nor the inclination to compete in open international markets. Free trade, it was maintained, would ensure prosperity for the west as the country turned away from uncompetitive manufacturing activities and concentrated on what it does best: producing resource-based products for world markets.

The task of this monograph is to consider briefly those developments which have compromised this faith in free trade before turning to an examination of the expected effects of both free trade in general and the Canada-U.S. Free Trade Agreement, reached on October 4, 1987, in particular, on individual industries important to the Prairies. The study will also consider the sectoral and regional implications of various economic models concerning trade liberalization, and the macroeconomic effects of free trade and their consequences for the Prairie region.

The study concludes that the Prairie and world economies have evolved over the past several decades in ways that remove much of the attraction of bilateral free trade for the Prairie provinces; that the Canada-U.S. Free Trade Agreement is likely to meet few of the needs of Prairie industries; and that inherent in the Agreement are significant risks for the future development of the region.

1.1 The Evolving Prairie Economy

Within the region three developments have served to change attitudes to trade liberalization: (1) a reduced reliance on agricultural production; (2) the development of diverse and complex industrial structures; and (3) increased government intervention in support of industrial, cultural and social development.

In 1961, agriculture employed one in four Prairie workers. By 1987, the figure was one in ten (see Table 2). The decline in the role of agriculture in the Prairie economy has been matched by growth in other sectors. Most dramatic, of course, has been the growing importance of oil, gas and mining.

Equally interesting, however, is the diversification that has occurred and the growing role played, directly and indirectly, by the public sector.

Table 1 below lists industries whose share of provincial Gross Domestic Product grew substantially between 1971 and 1984. The industries are listed in the order of their growth.

TABLE 1

INDUSTRIES OF GROWING IMPORTANCE IN PROVINCIAL GDP, 1971-1984

Manitoba
Health Services (Public)
Electrical Power
Provincial Government Services
Electrical Products
Transport Equipment
Local Government Services
Other Utilities

Alberta
Mining, Quarrying and Oil Wells
Provincial Government Services
Electrical Power
Chemicals
Machinery
Local Government Services

Saskatchewan
Mining, Quarrying and Oil Wells
Provincial Government Services
Health Services (Public)
Machinery
Local Government Services
Chemicals

Source: Statistics Canada, Input-Output Division, *Provincial Gross Domestic Product at Factor Cost, 1971-1984.*

What is evident from this listing is the growing importance of industries not normally associated with a resource-based region. As the region's economy has become more diverse, its dependence on imports from eastern Canada has declined. In 1961, 54 percent of exports from Ontario were destined for other Canadian provinces. By 1986, that proportion had dropped to 30 percent.[2] Conversely, the Prairie provinces now meet a far greater proportion of their industrial input and consumer goods needs internally and through purchases on world markets. In the early 1950s in Saskatchewan, for example, manufactured goods from the rest of Canada represented 72.5 percent of total provincial imports. By the early 1980s that figure had fallen to under 40 percent.[3]

There is another and related consideration. Community, business and personal services and the trade sector accounted for nearly half of the new jobs created in the region between 1961 and 1987 (see Table 2). Primary industries other than agriculture accounted for less than 10 percent of the new jobs over the same period. Despite growth in the contribution mining and oil make to total output in the region, these industries still provide a relatively small share of direct employment. The mining and petroleum sectors contribute indirectly to employment growth in the service sector primarily through the demand for goods and services they generate and through their contribution to provincial tax revenue. Most of this effect, however, is indirect and not easily isolated. The demands for accommodation, health services, and education arising from growth in the oil industry, for example, are not segregated from the larger demands for these services from other sectors of the economy. As a result, most workers are employed in industries with little *direct* dependence on world markets.

TABLE 2

PRAIRIE EMPLOYMENT PATTERNS, 1961 and 1987
(PERCENT OF TOTAL EMPLOYMENT)

	Manitoba		Saskatchewan		Alberta		Canada	
	1961	1987	1961	1987	1961	1987	1961	1987
Agriculture	17.7	8.2	37.5	20.1	21.6	7.8	10.2	4.0
Other Primary Industries	2.5	1.6	2.1	2.4	4.4	5.7	4.2	2.4
Manufacturing	13.9	11.5	4.8	5.2	8.8	7.5	22.3	17.1
Construction	6.2	5.0	5.4	5.2	7.8	6.3	6.8	5.7
Transportation, Communications and Other Utilities	11.9	9.5	9.5	7.2	9.9	7.6	9.6	7.6
Trade	17.1	17.9	14.3	17.5	16.7	18.2	15.7	17.7
Finance, Insurance & Real Estate	3.6	5.8	2.2	4.6	3.1	5.0	3.6	5.8
Community, Business & Personal Services	19.1	32.3	18.5	30.8	19.5	34.7	20.0	32.9
Public Administration & Defence	7.9	8.0	5.7	7.0	8.1	7.3	7.6	6.8
All Industries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Economic Council of Canada, *Western Transition* (1984), p. 150, and Statistics Canada, *The Labour Force* (December 1987) (figures may not sum to totals due to rounding).

The growth in service employment has taken a variety of forms. The ten service industries listed in Table 3 accounted for 88.3 percent, 85.9 percent and 58.6 percent of the new jobs created in Manitoba, Saskatchewan and Alberta, respectively, between 1971 and 1981.

TABLE 3

JOBS CREATED IN SELECTED SERVICE INDUSTRIES AS A PROPORTION OF ALL NEW JOBS, BY PROVINCE, 1971-1981

Service Industry	Manitoba	Saskatchewan	Alberta
Education & related services	7.5	6.1	4.3
Health & welfare services	15.7	13.9	6.2
Services to business	8.9	6.9	8.7
Accommodation & food services	12.9	12.7	7.1
Wholesale trade	6.6	8.9	5.8
Retail trade	15.6	18.4	12.3
Provincial administration	4.7	5.4	3.0
Local administration	4.2	4.7	2.8
Transportation	7.9	3.9	4.9
Finance	4.3	5.0	3.5

Source: Economic Council of Canada, *Western Transition* (Ottawa, 1984), p. 155.

Of these, services to business and transportation are the two industries where changing policies governing international trade may have significant direct consequences. In the other rapidly growing service industries, trade policy has little direct effect. In these services, what interest there is in free trade is focused on indirect effects and is motivated in part by fear that closer economic ties with the United States will lead to a more market-oriented approach toward the provision of social services in Canada.

At the same time, the Prairies have become far less dependent on imports of high-priced consumer and producer goods from eastern Canada. Tariffs have already come down sharply, reducing the premium paid for goods imported from the east. At the same time, manufactured goods from eastern Canada as a share of Prairie imports have fallen sharply. Meanwhile, the proportion of Prairie exports going to the rest of Canada has grown. The picture of the Prairies as a region selling into competitive world markets and buying from heavily protected central Canadian manufacturers is much less realistic than it once was.

1.2 The Changing World Economy

Beyond the region, developments that have changed the potential effects of free trade include: (1) increasing international specialization within product lines; (2) multilateral tariff reductions; (3) a loss of competitiveness by U.S. manufacturers in world markets; (4) a shift from simple tariff protection to complex non-tariff barriers.

Since 1960, the United States has experienced a secular decline in the competitiveness of its manufacturing industries. The surge in the international value of the U.S. dollar in the early 1980s produced an acceleration in this process.

In 1953, the manufacturing sector employed one in three non-farm workers in the United States. By 1985, only one in five was employed in manufacturing.[4]

American firms are no longer competitive in a wide range of consumer goods, including calculators, televisions, hi-fi equipment, watches, motorcycles and videorecorders. The same trend is evident in a number of basic industrial and business inputs such as machine tools, robots, mining equipment and semiconductors. The few American firms that continue to produce consumer and producer goods in these sectors set their prices to meet the prices of the imported competition, inclusive of tariffs and the tariff equivalent of non-tariff barriers. The same situation prevails in these sectors of the Canadian economy. To the extent that Canadian prices in these import-sensitive sectors exceed those in the United States, the difference reflects higher Canadian trade barriers to imports from third countries and higher Canadian taxes.

Imports as a proportion of sales of manufactured goods in the United States reached 21 percent in 1985, more than twice the 1970 figure.

The loss of competitiveness has produced several results in the United States. In response to increased import competition, American firms have stepped up their use of imported components. Japan alone shipped $8 billion worth of parts to the United States in 1985.

Most analysts expect this trend to continue. The Arthur Andersen consulting firm estimates, for example, that the proportion of imported parts in U.S.-built cars will rise from 18 percent in 1985 to 29 percent in 1995. These imported components come from either subsidiaries abroad or independent foreign producers. In either case, one of the effects of increasing outsourcing is the transfer of technology and market knowledge abroad. This has served to develop within the nations exporting to North America the capacity to compete more effectively against North American producers in the United States and other markets.

A second response to intense import competition has been the tendency to import and sell finished goods under the brand-names of American firms. General Electric now imports virtually all the consumer electronics, such as televisions, microwaves and air conditioners it sells in the United States, a total of $1.4 billion in 1985. Between mid-1984 and 1986, the proportion of GE's employees engaged in manufacturing was reduced from 60 percent to 10 percent.[5]

Other household names in the American economy such as Caterpillar, Honeywell and the three major automakers all import and sell under their own labels a substantial proportion of their finished products. The U.S. Commerce Department estimates that in 1988, 17 percent of the cars sold by U.S.

automakers will be produced by foreign firms such as Toyota and Mitsubishi.[6]

A more extreme form of this trend is the development of firms whose sole function is one of coordinating decentralized systems of world-wide design, production and distribution. These "hollow corporations," including Nike, Reebok, Ocean Pacific, Emerson T.V., and Esprit undertake virtually no production themselves.

The changing structure of the American economy has major implications for the potential benefits to Canada from bilateral free trade with the United States.

The development during the 1960s and early 1970s of production facilities abroad to serve the American market has been followed by an increasing shift of research, design and finance functions abroad. This has led to the rapid erosion of U.S. technological leadership.

In this environment the potential benefits to Canada from bilateral free trade are considerably smaller than they were two decades earlier.

Canadian consumers will not gain cheaper access to a wide range of consumer goods since many such goods are not American-produced and therefore not eligible for freer access to Canada.

Secondly, to the extent that producers serving North American markets need access to least-cost inputs from around the world, American production or assembly is preferable to Canadian. This is so because any failure to meet domestic content requirements would be far less costly in the former case. Loss of the Canadian market or the imposition of tariffs on Canadian-bound production of U.S.-based producers would cost only one-tenth as much as the loss of the U.S. market or tariffs on U.S.-bound production by Canadian-based producers.

Direct foreign investment in Canada has traditionally enabled multinationals to exploit American leadership in technology.[7] With the shift of technological leadership abroad, Canada has seen a rapid expansion of direct foreign investment from Asia. In this situation, there is less scope for vertical specialization on a North American scale.

One barrier to such specialization is the increasing tendency of all multinationals to import a larger proportion of goods and services from their home country than do comparable domestic firms. In the case of Asian-based firms, this will make it difficult to meet the domestic content requirements contained in the Free Trade Agreement.

In entering a bilateral free trade agreement, Canada is tying itself into a high-cost environment for industrial inputs. The pact will divert Canadian consumption from the products of world-class producers in countries outside

North America to less competitive American producers. In effect, tariffs currently paid to the Canadian treasury by Canadian consumers will be diverted to American producers. Tax increases to compensate for this loss of tariff revenue will, of course, be paid by Canadian consumers.

In Canada, investment will tend to be diverted from sectors where Canada is a worldwide leader to sectors where we enjoy a comparative advantage only over protected American producers. This, in turn, will tend to divert tariffs that would otherwise be paid to the U.S. treasury to Canadian firms.

In sum, the loss of U.S. competitiveness in international production reduces the potential benefits from the free trade pact by: (1) limiting the increased variety of products available to Canadians; (2) reducing the potential consumer gain from lower-priced imported goods; (3) reducing the scope for continental specialization; (4) restricting the attractiveness of Canadian locations in sectors potentially dependent on imported inputs; and (5) diverting production and consumption from world-class industries to North American-class industries.

NOTES

[1] Public opinion polling by Angus Reid and detailed consultations with industry representatives carried out by the Canada West Foundation and provincial governments support this conclusion. See Angus Reid, *The Reid Report* 1, no. 2 (February 1986): 2-24; Canada West Foundation, *Putting the Cards on the Table. . . Free Trade and Western Canadian Industries* (September 1986) and "Final Report on the Saskatchewan Public Consultations on Trade Negotiations" (Regina: Government of Saskatchewan, 1987).

[2] Statistics Canada, *Provincial Accounts*.

[3] Saskatchewan Bureau of Statistics, *Economic Statistics*.

[4] *Businessweek* (3 March 1986), p. 58.

[5] Ibid., p. 66.

[6] Ibid., p. 62.

[7] See A.M. Rugman, *Inside the Multinational: The Economics of Internal Markets* (New York: Columbia University Press, 1981), for example.

TWO

The Agreement — Preliminary Observations

Tariff protection between Canada and the United States has declined steadily since World War II. In 1954, 61 percent of Canadian imports from the United States faced import duties averaging 17.3 percent. By 1986, only 15 percent of Canadian imports were subject to duty, bearing an average tariff rate of 11.2 percent.

Canadian tariffs currently average 3.8 percent on all goods imported from the United States or 11.2 percent on dutiable goods while U.S. tariffs average 2.3 percent on all goods or 6.5 percent on dutiable goods.[1]

Tariff-protected industries are overwhelmingly located in Ontario and Quebec. Western Canadians see themselves as "world-class" producers paying an exorbitant premium for the consumer and producer goods they buy, in order to support inefficient eastern manufacturers.

Residents of western Canada have seen in tariff removal the potential for much lower consumer and producer prices on all the goods they buy from the east and from the United States. In the east, there is an increasing hope that the removal of U.S. tariffs would permit a burst in productivity as large new markets are opened to Canadian manufacturers. Neither result is probable.

As is evident from Table 4, tariff rates in the two countries tend to be high for the same classes of goods. This reflects the fact that in the high-tariff industries — knitting mills, clothing, tobacco, leather and leather products, textiles, metal fabricating and electrical products — neither Canada nor the United States is competitive in the world market.

Some analysts have argued that high tariffs in Canada are a response to high costs resulting from the small protected market available to Canadian producers. The fact that American producers in these same industries also enjoy high tariff and non-tariff protection, despite their access to the larger American market, suggests that this is not the case.

In industries where neither country is competitive on a world scale, prices are generally determined by the world price plus the tariff on goods imported from lowest-cost producing countries. Domestic producers act to match this landed world price inclusive of tariffs, taxes and transportation costs. Removal of Canadian and American tariffs will do nothing to change this situation.

TABLE 4

CANADIAN AND U.S. BILATERAL TARIFFS FOLLOWING TOKYO ROUND, 1987

Commodity	Canada (%)	U.S. (%)
Grains	2.09	1.30
Live Animals	1.90	1.06
Other Agricultural Products	0.81	2.99
Forestry Products	0.00	1.08
Fish Landings	0.29	0.59
Hunting & Trapping Products	0.00	0.28
Iron Ores & Concentrates	0.00	0.00
Other Metal Ores & Concentrates	0.00	0.03
Coal	0.00	0.00
Crude Mineral Oils	0.00	0.30
Natural Gas	0.00	0.00
Non-Metallic Minerals	0.39	1.14
Services Incidental to Mining	0.00	0.00
Meat Products	1.70	0.82
Dairy Products	5.58	7.74
Fish Products	1.81	2.37
Fruit & Vegetable Preparations	6.18	10.70
Feeds	0.94	0.81
Flour, Wheat, Meal & Other Cereals	6.53	2.74
Breakfast Cereal & Bakery Products	7.95	0.25
Sugar	3.75	7.36
Miscellaneous Food Products	4.84	2.68
Soft Drinks	7.68	0.51
Alcoholic Beverages	4.23	3.56
Tobacco, Processed, Unmanufactured	7.08	10.78
Cigarettes & Tobacco Manufacturing	17.15	14.86
Tires & Tubes	9.24	3.75
Other Rubber Products	10.81	4.36
Plastic Fabricated Products	10.18	3.64
Leather & Leather Products	11.64	7.49
Yarns & Man-Made Fibres	7.84	4.65
Fabrics	20.79	9.61
Other Textile Products	11.87	6.00
Hosiery & Knitted Wear	23.76	19.61
Clothing & Accessories	16.53	10.58
Lumber & Timber	0.12	0.00
Veneer & Plywood	4.69	1.16
Other Wood Fabricated Materials	4.91	4.63
Furniture & Fixtures	13.46	1.77
Pulp	0.01	0.00
Newsprint & Other Paper Stock	5.92	0.20
Paper Products	7.34	2.16
Printing & Publishing	2.18	0.27
Advertising Print Media	0.00	0.00
Iron & Steel Products	5.61	3.64
Aluminum Products	2.34	0.50
Copper & Copper Alloy Products	3.37	0.98
Nickel Products	0.44	0.05
Other Non-Ferrous Metal Products	0.72	1.49
Boilers, Tanks & Plates	6.43	2.33
Fabricated Structural Metal Products	5.85	4.12
Other Metal Fabricated Products	6.84	1.82

Agricultural Machinery	0.16	0.14
Other Industrial Machinery	3.91	2.92
Motor Vehicles	0.32	0.02
Motor Vehicles Parts	0.66	0.28
Other Transport Equipment	1.69	0.23
Appliances & Receivers, Household	7.37	4.97
Other Electrical Products	5.57	4.02
Cement & Concrete Products	1.50	0.71
Other Non-Metallic Mineral Products	4.89	1.04
Gasoline & Fuel Oil	0.02	0.59
Other Petroleum & Coal Products	3.16	0.35
Industrial Chemicals	3.94	2.55
Fertilizers	0.03	0.00
Pharmaceuticals	4.96	1.31
Other Chemical Products	6.26	3.94
Scientific Equipment	3.21	3.09
Other Manufactured Products	10.33	3.31

Source: Department of External Affairs: Calculated from GATT Tapes, July 1985. Import-weighted average rates, as of end of Tokyo Round. 1983 Import Weights.

2.1 Tariffs

The Free Trade Agreement eliminates all bilateral tariffs over a ten-year period.

In order to restrict the benefits of this Agreement to the two parties involved, Rules of Origin, along with limitations on Duty Drawbacks and Waivers, are also introduced.

These provisions will have the effect of limiting the benefits to Canadian producers, consumers and workers.

The potential benefits to consumers associated with the Agreement are much smaller than they would have been in the 1960s and 1970s.[2]

To an even greater extent, the potential benefits of tariff removal for Canadian producers have shrunk in recent years. A careful examination of 1961 input-output data carried out by J.R. Williams in 1978 indicated the very high cost protection on intermediate goods imposed on Canadian producers.[3] In the intervening years, an increasing awareness of this problem has led successive governments to bring tariffs down dramatically on key imports including steel, motor vehicles, machinery and equipment. Similarly, tariffs on agricultural and mining inputs have generally been removed.

This trade liberalization has had very positive effects in western Canada. It has given producers much greater access to foreign-produced inputs and forced rationalization and cost reductions on Canadian producers of steel and other inputs. Both developments have lowered production costs in western Canada.

In light of these developments and the waning competitive position of U.S. producers in steel, robotics, etc., the cost saving on producer goods from bilateral tariff removal will be minimal.

The details of the Agreement limit in several ways the ability of Canada to institute policies that encourage investment in Canada to serve the North American market.

A major gain for the U.S. in this Agreement is the limitation it imposes on Canada's ability to use waivers and drawbacks to promote industrial development. The Agreement is clearly intended to achieve this. The Canadian explanation accompanying the Preliminary Transcript acknowledged: "This provision is intended to ensure that company-specific duty waivers are not used in a manner that distorts trade *and investment* [emphasis added]."[4] This is an Agreement not only about trade but also about Canadian investment policies, particularly where those policies could make Canada an attractive investment location for firms from third countries.

Restriction on duty drawbacks will hurt the competitive position of processors in Canada who use imported parts and components. These restrictions seem to go well beyond those provided for under the GATT agreement.

Prohibition on company-specific duty waivers will undermine the Canadian policy of promoting world-product mandated production in Canada by third-country firms.

Restrictions limiting the export of apparel made from third-country fabric effectively undercut the potential for expanded exports by the Canadian clothing industry.

Stringent content regulations under the Agreement effectively prohibit Canada from exercising the option used by New Zealand in the Australia-New Zealand Free Trade Area of importing components and re-exporting finished products within the Free Trade Area. Such a prohibition is, of course, not unexpected.

2.2 Quantitative Restrictions

While the Preliminary Transcript of the Agreement suggested that progress had been made on limiting such restrictions, the final Agreement makes clear that "the Parties affirm their respective rights and obligations under the General Agreement on Tariffs and Trade (GATT) with respect to prohibitions or restrictions on bilateral trade in goods."[5]

This change in emphasis undoubtedly reflects concern expressed within Canada over the potential erosion of sovereignty under the Agreement.

The Agreement does reinforce GATT rulings insofar as they affect trade with the United States. Under GATT, Canada has the option of deciding that national interests override measures prescribed by GATT and could accept the corresponding countermeasures or could negotiate a compromise that would leave in place quantitative restraints that would otherwise be unacceptable under GATT. With the Free Trade Agreement, these options appear to be precluded.

The Agreement also provides for the phasing out of Canadian embargoes on used cars and used aircraft. Were Canadian prices lower than U.S. prices, this could produce somewhat lower resale *and trade-in values* for vehicles in Canada. One should remember, however, that there is no net gain associated with lower domestic prices for used cars. For every buyer who gains there is a seller who loses an equal amount. Such a case represents "consumer gain" only in the most arcane sense where an auto consumer ceases to be a consumer at the showroom door. The loss from more rapid depreciation resulting from lower used car prices cannot be ignored in any sensible analysis. A net gain occurs in this case only where used car imports actually take place. This is likely to be quite limited. A careful study recently carried out by Hazeldine and Wigington for the OECD indicates that used cars are in fact less expensive in Canada than in the United States. Thus free trade will produce a small loss, rather than a gain for used car buyers.[6]

The retention of log export restraints by both countries prevents serious potential harm to pulp producers. Like several other examples of successful government intervention, this provision is grandfathered. That is, it is retained despite the fact that it runs counter to the basic principles laid down in the Agreement. The log export restriction is an example of Canada's use of control over its resources to build processing industries that are internationally competitive and that have generated many jobs. With this Agreement, Canadian governments give up the right to do the same in other sectors.

2.3 Binational Dispute Settlement

In recent years countervailing and anti-dumping actions affecting $6 billion of Canadian trade have been undertaken. Trade lawyers contend that many of these cases have been launched solely to harass Canadian competitors. Recent American actions against foreign "subsidies" go far beyond the clearly defined export subsidies spelled out in the General Agreement on Tariffs and Trade. Programs that are widely available and not intended to increase exports have been increasingly targeted by the U.S., despite Article 11 of GATT that reads:

> Signatories recognize that subsidies other than export subsidies are widely used as important instruments for the promotion of social and economic policy objectives.and do not intend to restrict the right of signatories to use such subsidies to achieve these and other important policy objectives which they consider desireable . . . .

This article of GATT goes on to enumerate several objectives, including regional development, industrial restructuring, employment, research and development, economic annnd social development, environmental preservation, etc. that ought not to be seen as export subsidies.

In contrast, American trade actions have become so wide-ranging that Debra Steger, a trade lawyer who has followed the issue closely, concludes, "the U.S. definition [of subsidies] has become so broad in recent years that virtually no government policy — with the probable exceptions of universally available tax advantages or social benefits — is immune from potential attack."[7] It is in this environment that the Canadian negotiators set out to win exemption from, or at least meaningful limitations on, the countervailing and anti-dumping provisions of U.S. trade law.

Mr. Mulroney told the *New York Times* on April 2, 1987 that, "The trade remedy laws cannot apply to Canada, period."[8]

Simon Reisman said publicly that an agreement that did not restrict the use of U.S. dumping and countervail statutes "would not be worth the powder it would take to blow it to hell."[9]

Once it became clear the U.S. negotiators were not willing to grant Canada effective and binding limitations on their use of trade remedy law, the C.D. Howe Institute floated the idea of a non-binding binational panel that would undertake an initial review of any Canada-U.S. trade dispute and could exert moral suasion on the parties. Such a body might, it was thought, be capable of side-tracking frivolous and harassing actions by U.S. interests.

The final step in the trade remedy process in the United States, a step that can occur up to five years into a trade action, has been appeal to the U.S. courts. According to Canada's deputy chief negotiator, Gordon Richie, the ultimate appeal to the courts that exists in current U.S. trade law has worked well in recent years to produce impartial decisions. "Our problem was not necessarily with the impartiality of U.S. courts once the process finally ground its way to the end," Mr. Richie told the parliamentary committee examining the Agreement on November 2.[10]

Article 1902 of the Agreement provides that

> 1. Each Party reserves the right to apply its antidumping law and countervailing duty law to goods imported from the territory of the other Party. Antidumping law and countervailing duty law include, as appropriate for each Party, relevant statutes, legislative history, regulations, administrative practice, and judicial precedents.

Article 1904 provides

> 1. . . .the Parties shall replace judicial review of final antidumping and countervailing duty determinations with binational panel review . . . .

3. The panel shall apply the standard of review described in Article 1911 [definitions] and the general legal principles that a court of the importing Party otherwise would apply to a review of a determination of the competent investigating authority.

Canada has gained the right to take part in a binational panel to replace judicial review in the U.S. trade remedy process. This represents far less than even the C.D. Howe proposal of initial non-binding review. It provides no protection to Canadian producers from arbitrary harassment under either existing or future trade law.

Further, Ms. Carney indicated that, under the Agreement, Canadian producers will lose access to the U.S. courts, courts with more extensive enforcement powers and a reasonable record for impartiality.

2.4 Future Trade Laws

The Canada-U.S. Agreement reads:

Article 1902: Retention of Domestic Antidumping Law and Countervailing Duty Law

1. Each Party reserves the right to apply its antidumping law and countervailing duty law to goods imported from the territory of the other Party. Antidumping law and countervailing duty law include, as appropriate for each Party, relevant statutes, legislative history, regulations, administrative practice, and judicial precedents.

2. Each Party reserves the right to change or modify its antidumping law or countervailing duty law, provided that in the case of an amendment to a Party's antidumping or countervailing duty statute:

a) such amendment shall apply to goods from the other Party only if such application is specified in the amending statute;

b) the amending Party notifies the other Party in writing of the amending statute as far in advance as possible of the date of enactment of such statute;

c) following notification, the amending Party, upon request of the other Party, consults with the other Party prior to the enactment of the amending statute; and

d) such amendment, as applicable to the other Party, is not inconsistent with

i) the *General Agreement on Tariffs and Trade* (GATT), the *Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade* (the Antidumping Code), or the *Agreement on the Interpretation and Application of Articles VI, XVI and XXIII of the General Agreement on Tariffs and Trade* (the Subsidies Code), or

ii) the object and purpose of this Agreement and this Chapter, which is to establish fair and predictable conditions for the progressive liberalization of trade between the two countries while maintaining effective disciplines on unfair trade practices, such object and purpose to be ascertained from the provisions of this Agreement, its preamble and objectives, and the practices of the Parties.

Article 1903: Review of Statutory Amendments

1. A Party may request in writing that an amendment to the other Party's antidumping statute or countervailing duty statute be referred to a panel for a declaratory opinion as to whether:

a) the amendment does not conform to the provisions of subparagraph (d)(i) or (d)(ii) of paragraph 2 of Article 1902; or

b) such amendment has the function and effect of overturning a prior decision of a panel made pursuant to Article 1904 and does not conform to the provisions of subparagraph (d)(i) or (d)(ii) of paragraph 2 of Article 1902.

> Such declaratory opinion shall have force or effect only as provided in this Article.
>
> 3. In the event that the panel recommends modifications to the amending statute to remedy a non-conformity that it has identified in its opinion:
>
> a) the Parties shall immediately begin consultations and shall seek to achieve a mutually satisfactory solution to the matter within 90 days of the issuance of the panel's final declaratory opinion. Such solution may include seeking remedial legislation with respect to the statute of the amending Party;
>
> b) if remedial legislation is not enacted within nine months from the end of the 90-day consultation period referred to in subparagraph (a) and no other agreement has been reached, the Party that requested the panel may
>
> i) take comparable legislative or equivalent executive action, or
>
> ii) terminate the Agreement upon 60-day written notice to the other Party.

On the face of it, this section does appear to provide Canada with a significant degree of protection against increasingly arbitrary U.S. trade laws. One must keep in mind a number of qualifications, however. The Agreement does not take effect until 1989, so that Canada will be subject to the Omnibus Trade Bill expected to be passed by Congress in 1988. In addition, the GATT Code is rather ambiguous on the proper treatment of subsidies other than export subsidies. While it clearly defines export subsidies, it goes on to suggest that "Signatories recognize, however, that subsidies other than export subsidies, certain objectives and possible forms of which are described in paragraphs 1 and 3, respectively may cause or threaten to cause injury to a domestic industry of another signatory . . . . Signatories shall therefore seek to avoid causing such effects through the use of subsidies." It is conceivable that the U.S. could cite this section as justification for actions against non-export subsidies by Canada and other nations.

Even should a panel find that American officials had misinterpreted U.S. law, Canada's recourse is minimal. The example of Canada's duties on books and Christmas trees in response to the U.S. action on shakes and shingles illustrates the futility of "comparable legislative or equivalent executive action" on Canada's part. The only other remedy is cancellation of the Agreement, an action that is unlikely now, no matter what the provocation, and one that will become increasingly unthinkable as the two economies become more fully integrated.

2.5 The Working Group

Canada's key goal in the trade negotiation process has been to win exemption from U.S. trade law. The method through which the two sides apparently tried to achieve this was similar to the method applied in the EEC: a detailed list of acceptable and unacceptable subsidies. Canada clearly failed to win assured access to American markets. This task now falls to the so-called "Working Group" over the coming five years, with a possible two-year extension.

The mandate of this group is "to develop a substitute system of laws in both countries for anti-dumping and countervailing duties . . . ." This could mean either: (1) the development of laws to substitute for anti-dumping and countervailing duties; or (2) the development of comparable anti-dumping and countervailing duties laws to substitute for the existing ones.

The distinction is critical. The question is whether we are to quit beating each other with sticks or simply try to agree on the size of the sticks. Equal sticks, however, do not ensure equal effect when the individuals differ dramatically in size and strength.

In the latter case, Canada may adopt bad U.S. trade law or, less likely, the U.S. may move toward Canadian trade law which is not much better. In either case, the result would be little improvement on the present situation. Trade law, by definition, applies to foreign producers, not domestic ones. The continuation of the present system, whether harmonized or not, would leave producers located in Canada without assured access to 90 percent of the North American market and would deny their U.S.-based competitors assured access to only 10 percent of that market.

The alternative is the negotiation of lists of acceptable and unacceptable subsidies. The elimination of unacceptable subsidies that distort trade between the two countries would presumably result in exemption from each other's trade laws — Canada's primary objective. While such a symmetrical solution is attractive to Canadian negotiators, it has theoretical and practical shortcomings. U.S. officials have reportedly argued that while Canadian federal and provincial subsidies should be eliminated because they distort Canada-United States trade and investment to a substantial degree, U.S. state subsidies are not trade distorting in most cases and need not be removed. Exports represent about 25 percent of Canadian production and close to 80 percent of Canada's exports go to the United States. On the other hand, exports represent less than 10 percent of U.S. output and Canada is the destination of less than 20 percent of those U.S. exports. Thus, it is argued, subsidies in the United States do not have their primary impact on trade with Canada, and ought not to be constrained by a bilateral free trade agreement. As unpalatable as this logic is to Canadians, it does have some theoretical justification. Two professors from the University of Calgary have considered the possible shape of an arbitration mechanism for Canada-U.S. trade in meat and livestock, and have proposed a system that would weigh the benefits arising from a subsidy in either country against its cost in trade impeded.[11] The results of such a test are decidely asymmetrical, since comparable subsidy programs in the two countries produce very different benefits to trade distortion ratios. It appears that such a test would result in Canadian subsidies being ruled unacceptable far more often than comparable subsidies in the United States.

On practical grounds, American trade negotiators are not about to let the Canadian trade tail wag the American subsidy dog. The trade-off that will be negotiated is one of Canadian policies that could be viewed as trade distorting subsidies for assured Canadian access to the United States market.

Note that in an integrated economy, the distinction between trade and foreign investment law and domestic law becomes increasingly blurred. A prime example of this is the provision in the Free Trade Agreement that prohibits performance requirements for U.S investors in Canada. While that provision nominally protects American investors against discrimination, it effectively precludes the effective regulation of corporate behaviour in Canada. For the present government, this is no great loss since, to quote Energy Minister Marcel Masse, "We believe as a government that the market is the best protector for the consumer."[12]

What sorts of subsidies will the Working Group examine?

We know two areas where the government has made concessions already although they do not appear in the Preliminary Transcript or the elements of the Agreement.

Stanley Hartt, former Deputy Minister of Finance, has indicated that regional development incentives will have to be delivered in very different forms than they have in the past as a result of the free trade talks. This will clearly limit the ability of the federal government to provide effective assistance to industries in the less developed sections of the country.

Despite numerous promises during the negotiations of this Agreement that industrial adjustment assistance would be forthcoming to help Canadian industry gear up to meet the challenges of an open North American market, the Prime Minister and his cabinet have been extremely careful to indicate that adjustment assistance will be provided only to displaced workers. Any reference to adjustment assistance for industry has been studiously avoided. This undoubtedly reflects an understanding between the two countries reached during the talks. An indication of the extent to which such a prohibition will operate is given by reports that the U.S. has agreed in the final text to permit Canada to help grapegrowers displaced by the loss of preference for Canadian wine adjust to other lines of production. This clearly indicates that the government has ceded to U.S. authorities its sovereign right to aid Canadian industry.

The Working Group can be expected to address a number of policies used by provincial governments, including preferential procurement policies, industrial incentives and agricultural support programs. Beyond that, the United States can be expected to use this forum to pursue a variety of other concerns it has about Canadian policies, including exchange rate policy, agricultural policies and possibly tax and social policies. The office of the

U.S. trade representative has prepared a study identifying special treatment for Canadian firms in areas such as provincial and federal contracts, cultural industries, farming and the food industry, footwear, data processing and telecommunications. While the present Agreement has not dealt with many of these measures, many of them are slated for future elimination, presumably through the Working Group process.[13]

One can expect that within a few months of ratification of the deal, the federal government will seek from the provinces a blank cheque for the Working Group to bargain away provincial powers in exchange for assured access to the American market.

In trying to assess the likely direction of these ongoing negotiations, one should remember the context of the talks. The U.S. Congress can be expected to pass within months a trade bill that expands the definition of countervailable "subsidies." This legislation will, in all likelihood, apply to Canada.

Whether or not the legislation applies to Canada and whether or not it is vetoed by the American president, it will become the starting point for the Working Group's deliberations. The United States will not concede to Canada preferred access to the American market unless Canada agrees to restrictions far more stringent than those applied to other American trade partners. The entire American wish list is thus back "on the table."

Is this Working Group process likely to meet with success? Only if three conditions are met: (1) there is substantial moderation in the protectionist sentiment of the U.S. Congress; (2) the present government remains in power for five to seven years; (3) major elements of provincial jurisdiction are negotiated away either with the concurrence of the provinces or over their objections.

NOTES

[1] Magun, Sunder, Soneshwar Rao and Bimal Lodh. "Impact of Canada-U.S. Free Trade on the Canadian Economy." Economic Council of Canada Discussion Paper 331 (August, 1987), pp. 24-25.

[2] See pp. 1-4 above.

[3] J.R. Williams, *The Canadian-U.S. Tariff and Canadian Industry: A Multisectoral Analysis* (Toronto: University of Toronto Press, 1978).

[4] Preliminary Transcript, *Canada-U.S. Free Trade Agreement: Elements of the Agreement* (Ottawa: External Affairs Canada, 1987), p. 6.

[5] *The Canada-U.S. Free Trade Agreement* (Ottawa: External Affairs Canada, 1987), Article 407.1, p. 54.

[6] T. Hazeldine and I. Wigington, "Canada Auto Policy," *Canadian Public Policy* 13, no. 4 (December 1987). For a further discussion of this issue, see Appendix A.

[7] *Globe and Mail*, February 5, 1987.

[8] Quoted in *Globe and Mail*, October 12, 1987.

[9] *Financial Post*, March 16, 1987.

[10] *Globe and Mail*, November 3, 1987.

[11] C.J. Bruce and W.A. Kerr, "A Proposed Arbitration Mechanism to Ensure Free Trade Between Canada and the U.S. in Livestock and Meat Products." University of Calgary Discussion Paper 92, 1985.

[12] *Globe and Mail*, October 30, 1987.

[13] Ibid., December 2, 1987.

THREE

Sectoral Effects

Free trade in general and this bilateral Free Trade Agreement in particular present opportunities and problems for the key industries in the Prairie region.

This chapter reviews the main concerns industry groups brought to the negotiations and examines how the October 4 Agreement addresses them.

3.1 Agriculture

There is widespread recognition that the current system of world trade in agricultural products is in urgent need of reform. Competition in grain and livestock markets reflects less and less the relative resource bases and capacities of farmers and more and more the willingness of national and supra-national treasuries to subsidize production and trade. It is becoming increasingly clear to all governments, including those that are taking the lead in the subsidization of agriculture, that such a situation is costly and destructive for taxpayers, consumers and farmers alike.[1]

Despite the apparent need for freer trade in agriculture, support among agricultural producers for bilateral free trade is limited. Beef producers are alone in wholeheartedly endorsing the initiative. Producers of many other commodities are uncertain while dairy and poultry producers have been almost unanimous in their hostility.[2]

The potential gains for most sectors of agriculture from *bilateral* free trade are small at best while the necessary adjustments may be costly and disruptive. Since only 18 percent of Canada's agricultural exports are destined for the United States, there is clearly much less opportunity for gain from improved market access in agriculture than there may be in other sectors of the economy. On the other hand, the complex nature of agricultural regulation in the two countries would make policy harmonization difficult and costly. In the grain sector, in particular, both nations have efficient but very different marketing systems and, since both are surplus producers, there is little potential for bilateral trade. From the Canadian grain producers' perspective, there is therefore little to be gained from the integration and harmonization of the two systems.

Protection in Canadian agriculture currently takes a wide variety of forms, including tariffs, quotas, health regulations, labelling and packaging standards, production and transportation subsidies.[3] On the American side, protection takes many of the same forms but tends to be delivered by less direct means, such as loan guarantees and subsidized irrigation projects.[4]

Canada-U.S. trade in agricultural products is currently limited by a variety of trade barriers and by the fact that the two countries are net exporters of many of the same products.

Canada currently imports a large volume of fruit and vegetables from the United States. This industry is protected in Canada only during the harvest season.

In red meat industries, Canada currently enjoys a large surplus in trade with the United States. With assured access, beef producers believe they could supply a still larger part of the American west coast market.

Canadian pork enters the U.S. market duty free but live hogs are subject to a countervailing duty of 4.3¢ per pound. U.S. hogs are effectively banned from Canada due to health regulations dealing with pseudo-rabies.

There is little grain trade between Canada and the United States. Canada exported 274,000 tonnes of wheat to the U.S. in 1985-86.

There is also little bilateral trade in dairy, poultry and egg products since these supply-managed industries are protected by quotas and tariffs in Canada.

Bilateral free trade in agriculture would produce modest gains in income for some agriculture producers and significant losses and adjustment costs for other producers.

The division that exists on the issue reflects the calculation by each commodity group of the potential consequences for it of a bilateral free trade regime. There also remains a good deal of uncertainty and fear over the broader implications this deal might hold for agricultural and social policy in the future.

The Free Trade Agreement reached on October 4 shows an awareness on the part of the negotiators of the concerns of agricultural producers. As a result, trade liberalization in agriculture is limited, and contains several provisions designed to limit costs to agricultural producers. In exchange for a substantial degree of on-going protection, the negotiators settled for a deal with few clear benefits for those agricultural producers who supported free trade.

The negative consequences of both the narrow agreement actually agreed to and further bilateral trade liberalization that may be negotiated in subsequent talks is likely to be greater in eastern Canada than in the west. From 75 percent to 80 percent of the agricultural production subsidized under the Agricultural Stabilization Act and the two-price wheat system takes place in Ontario and Quebec.[5] Two of the agricultural industries most seriously affected by the Agreement are horticulture and grape-growing. These are concentrated in the east and B.C. Production of two products that are vulnerable to further liberalization — dairy and tobacco — is also centred in Ontario and Quebec. In addition, a variety of government programs that would be challenged under a broader free trade arrangement, including Feed Freight Assistance, and provincial hog subsidies, have shifted the livestock feeding and processing industry eastward. Comprehensive free trade would reverse this process.

While the costs of broader free trade in the west are less than they would be in eastern Canada, it is still likely that they exceed the potential gains.

In a study prepared for the western Wheat Pools, the consulting firm Deloitte, Haskins and Sells determined that the net effect of a broad free trade agreement in agriculture that excluded dairy production, compared to a continuation of the present trade regime, would be an annual *net loss of $42 million for western Canadian producers*.[6] Were dairy production included in such an agreement the net cost to western producers would be much higher. The Deloitte, Haskins and Sells study predicted a substantial increase in incomes in the beef and pork sectors arising from bilateral free trade but, according to their estimates, this gain would be more than offset by losses in the poultry and feed grain sectors. It is also important to note that much of the western gain in red meat production would come at the expense of eastern Canadian livestock producers.

There are, nevertheless, a number of reasons why the exclusion of several agricultural products creates difficulties.

Agricultural commodities represent basic inputs for a wide range of manufactured food and beverage products, many of which have been protected by prohibitive tariffs or quotas. Examples include baked goods, cheese, yogurt and beer. Excluding agricultural products from free trade while allowing these products to enter Canada in processed form will displace Canadian production by rendering it uncompetitive due to relatively high input costs and thus eroding employment in the food manufacturing sector, eliminating any benefit to producers from the protection of the agricultural input. The full exclusion of the food sector, on the other hand, is incompatible with the concept of comprehensive free trade. The food industry represents 14 percent of employment in the manufacturing sector. In addition, the food and beverage component represents approximately 20 percent of the consumer price index. Substantially higher food prices in Canada would lead to a higher overall cost of living than in the United States, to higher wages and to a weakening of the competitive position of Canadian firms in all industries. Like higher taxes, this disadvantage could be offset by a lower valued

Canadian dollar only if all Canadian workers accept a lower real wage than their American counterparts.

The need to maintain a competitive food processing sector will continue to produce pressure for an end to protection in Canadian agriculture.

The Canadian government has four other reasons for pursuing a bilateral trade deal in agriculture with the United States: (1) lessening or removing the threat of American trade actions against beef, pork and other products; (2) providing a model for the GATT talks of mechanisms that control subsidized trade and arbitrary protection; (3) providing consumers with lower priced food products; and (4) creating a framework that would lead to the elimination of provincial and federal restrictions that distort agricultural production.

Little has been accomplished thus far in any of these areas. The U.S. and Canada retain the right to impose countervailing and dumping duties on each other's agricultural products. The mechanism to regulate trade actions in agriculture is very weak. Most food products in Canada that are currently more expensive than in the United States are unaffected by the Agreement. Dairy, poultry and eggs are exempt. Provincial and federal programs that limit market forces in agricultural production are largely untouched.

Despite the concentration of protected industries in the east, free trade would require substantial adjustment for many prairie producers. It is widely recognized that the regional nature of Canadian agricultural policy represents a main barrier to Canadian participation in international trade liberalization. The very substantial protection afforded the supply-managed sectors of Canadian agriculture leads to the generation of substantial economic rent. The ethic of regional equity and the joint jurisdiction over agriculture exercised by the two senior levels of government in Canada have led to a system of market sharing on a provincial basis that takes very little account of comparative advantage in determining the location of the production of supply-managed commodities.

Keeping in mind the ongoing pressure for further movement toward trade liberalization in agriculture, the effects in individual sectors vary.

3.1.1 Grains

Since the potential gains in income and efficiency from free trade in grains are small in comparison with the adjustments needed to achieve free trade, this sector has thus far been largely exempted from any pact.

Both Canada and the United States are major exporters of grain to third countries. The bilateral free trade pact will not lead to any substantial increase in grain trade between the two countries or to significant changes in production or income. Rather, agreement in this sector is seen as a model for multilateral negotiations.

Under the Agreement, imports and exports of grain between the two countries are to be permitted as long as the level of subsidization in the exporting country is equal to or less than that in the importing country. For oats and barley, the level of subsidization is apparently roughly equivalent now so that Canada could see imports of these products when the Agreement takes effect on January 1, 1989.

The formula for determining the level of subsidization has been developed under GATT. This definition of subsidization is very broad, including items like transport assistance, government-funded research and crop insurance funded in part by government. While this definition in the Agreement does not currently provide a basis for countervail action, it may play a role in future talks either at GATT or bilaterally, given the American goal of eliminating all agricultural subsidies by the year 2000.

According to this formula, wheat in the United States is currently estimated to be subsidized by about $50 per tonne more than Canadian wheat so that wheat imports into Canada will not be permitted immediately under the Agreement. Large deficiency payments by Canada would hasten the entry of U.S. wheat.

Throughout the talks, a number of agricultural experts expressed the concern that free access by U.S. grain to the Canadian market could undermine the Canadian grain marketing system. The three main concerns — (1) that American farmers would demand access to Wheat Board quotas, thus undermining the quota system; (2) that American farmers would take advantage of subsidized grain transport in Canada, possibly swamping the grain transportation system; and (3) that lower quality American wheat would harm Canada's reputation for exporting the highest quality grain, thus endangering the premium Canadian wheat earns in world markets — were all apparently taken into consideration in drafting the Free Trade Agreement. American grain imports will be restricted to direct shipments to processors, so that grain will not enter the Canadian Wheat Board system.

Nevertheless, the Agreement does effectively spell the end of two-priced wheat and should eliminate the premium of approximately $80 per tonne Canadian barley growers earn for malting barley sold to Canadian breweries. According to Saskatchewan trade officials, compensation for the $280 million annual loss from the end of the higher price for domestic wheat will be rolled into Canadian government deficiency payments to grain producers. As other countries end subsidized grain exports, world prices are expected to rise and deficiency payments, including compensation for the loss of two-priced wheat, would be phased out.

Canadian exports of wheat to the United States will apparently be possible upon implementation of the Agreement. At the present time, the Canadian Wheat Board, which has an export monopoly, restricts sales to the United States in order to maintain good relations with producers and grain companies in that country. Little is likely to change under the Agreement since the Wheat Board will reportedly retain its control over exports. Such control is essential to the Canadian grain marketing system. Without such control, the pooling of grain prices would be endangered. In addition, the possibility of substantial amounts of grain moving to export markets through the United States could erode the volume of grain handled by the Canadian elevator, rail and port systems, thus raising average costs to be borne by shippers. Unrestricted exports of grain from Canada could also lead to a larger role for U.S. grain companies in the system.

3.1.2 Red Meat

The threat of countervailing actions by American producers is a serious impediment to expansion of the Canadian red meat industry to serve U.S. markets on a permanent basis. Tariffs are not currently a major barrier to the shipment of beef and pork products into the United States. Non-tariff barriers are a more serious concern. In order to make large-scale and permanent inroads into the beef and pork markets of the western states, Canadian producers must be able to guarantee an uninterrupted supply of high-quality product. Major American retailers are reluctant to become dependent on Canadian suppliers when this supply can be disrupted on short notice. Without security of access, it will be difficult to justify large-scale expenditures on production and processing facilities in western Canada designed primarily to serve the U.S. market. The threat of interruption of supply also has discouraged major marketing and promotion efforts in the U.S. market. The ability of American producers to initiate countervailing actions is a major potential source of disruption. Were the U.S. government willing to concede "national treatment" to Canadian products, these bariers would be removed and further expansion of sales to the western U.S. could be significantly expanded.

The ability to negotiate exemption from U.S. countervailing actions and other protectionist measures was central to the free trade negotiations. Chief Canadian Trade Negotiator Simon Reisman said repeatedly that he could not recommend a deal that did not provide such an exemption for Canadian firms. Nevertheless, American officials were unequivocal in rejecting the possibility that the U.S. would surrender its power to impose countervailing duties on products they believe are unfairly subsidized. U.S. Trade Representative for Canada, William S. Merkin, made clear in a speech in Calgary in February of 1986: "The U.S. Congress will not do away with a company's right to countervail or antidumping measures against a Canadian company.

These issues will continue to be addressed through existing channels."[7] Under the Free Trade Agreement, that is effectively the case.

The Agreement does provide three improvements in access to the U.S. market for Canadian beef: exemption from the Meat Import Law, exemption from the Agricultural Adjustment Act and a commitment to end the use of health standards as trade barriers in the meat sector.

This falls well short of the assured access producers and processors had sought. Canadian cattle and beef shipments will still face the possibility of countervailing duties. While meat industry representatives have been quite positive about the Agreement, it is not yet clear whether this limited increase in security of access will be sufficient to lead them to undertake the large-scale marketing efforts needed for Canada to become a permanent major supplier to the large beef market in California. Similarly, only time will tell whether the access provided is secure enough for major retailers in that area to enter into large-scale, long-term supply contracts with Canadian packers.

U.S. officials have also expressed their concern that Canada not relax its meat import laws as they apply to third countries since larger imports of beef into Canada would push an increasing amount of Canadian beef into American markets. While the Agreement does not refer to any accord on this point, this case does provide a clear example of how bilateral free trade pushes the Canadian government toward harmonizing its import policies with those of the United States.

The Meat Import Law does not apply to pork, so exemption from that law will have no effect in the pork sector. The countervailing duty on hogs imported from Canada remains in effect despite the Agreement. Hog imports into Canada will be allowed so long as the hogs go directly to slaughtering plants. This avoids the potential contamination of Canadian hogs with pseudo-rabies.

In the red meat industry, broader trade liberalization could have produced a major shift in the livestock and meat industry toward western Canada. However, feed freight subsidies on shipments of feed grain to eastern Canada still encourage livestock feeding and processing in eastern Canada. Large subsidies by the Quebec government further encouraged hog production in that province.

3.1.3 Dairy and Poultry

A potential source of gain to consumers from bilateral free trade in agriculture was lower poultry and dairy prices. Nationally, it was estimated in 1980 that supply management resulted in annual transfers from consumers and taxpayers to poultry producers of $100 million and to dairy producers of almost $1 billion.[8] In the case of dairy products alone, the welfare cost, representing the difference between consumer/taxpayer loss and producer gain, has been estimated at over 30 percent of the amount received by producers.[9] It has also been calculated that the removal of import quotas would lead to a 25-30 percent drop in poultry and egg prices in Canada, to bring them into line with prices in the northern states.[10] Removal of dairy quotas in Canada and price supports in the United States and reliance on market forces to eliminate surplus production would produce a fall in industrial milk prices of approximately 20 percent. The price of fluid milk would fall an estimated 20-40 percent, depending on the region.[11]

Neither country's dairy producers were eager to gain access to the other's market in exchange for opening their own markets to import competition. While the wishes of the industry prevailed in this case, this happened only over the objections of those who saw the trade talks as an opportunity to rationalize production by subjecting "rent-seekers" in both countries to the discipline of international competition.

The removal of tariffs on imported processed foods will permit the importation of processed egg and poultry products such as frozen entrées and T.V. dinners. This will tend to undermine the competitive position of Canadian food processors in this rapidly growing segment of the market and erode the domestic market for eggs and poultry.

Dairy products currently controlled through quotas will continue to be controlled in that way. Canada retained the right to add other dairy products such as yogurt and ice cream to its list of products subject to import control and has done so.

3.1.4 Marketing Boards

Canada retained its rights under GATT to operate both existing and new supply-management programs and to protect these programs through import quotas. Trade Negotiations Office officials have indicated that this right overrides other apparently contradictory clauses in other parts of the Agreement, most notably the commitment to end quantitative restrictions within ten years. The future of marketing boards could, however, be affected by the GATT negotiations on agricultural trade currently underway in Geneva or through ongoing negotiations between Canada and the United States. In its recently presented position paper to the GATT talks, Canada did not insist on ongoing protection for marketing boards. This position was reportedly taken over the objections of Pierre Blais, the minister of state for agriculture.[12] Upon seeing the Canadian proposal, American officials expressed regret that it did not deal specifically with two of the main concerns they have about Canadian agricultural practice: state trading in grain [i.e., the Canadian Wheat Board] and transportation subsidies. These are issues which experts expect the U.S. to continue to pursue with Canada at the GATT talks and elsewhere.

3.1.5 Other Provisions

The Agreement calls for Canada and the United States to work toward the elimination, on a global basis, of all subsidies which distort agricultural trade. It is difficult to see how Canada will reconcile this effort with current policies in the dairy and other industries.

Another provision commits each party to take full account of the export interests of the other party in making subsidized export sales. It is this provision that the United States has apparently violated, at least in spirit, in undertaking subsidized sales to the Soviet Union, China and India. American officials have argued that the Agreement is not intended to restrict their actions under existing programs. That is consistent with the wording in other parts of the Agreement. This situation does raise some doubt whether the American negotiators share the Canadian view that the terms of the agricultural section override apparently contradictory sections elsewhere in the Agreement.

The two parties have agreed to continue to consult at least semi-annually on agricultural issues.

3.2 Other Resources

Natural resources, including agriculture, accounted for 11.6 percent, 29.3 percent and 29.7 percent of total output in Manitoba, Saskatchewan and Alberta, respectively in 1981.[13] In contrast, natural resources production accounted for only 4.0 percent and 4.7 percent of total output in Quebec and Ontario, respectively. With the exception of coal, all the major resource products of the Prairie region are dependent on export markets.

The natural endowments of the Prairie region include large, high quality reserves of natural gas, potash, uranium and heavy oil. In addition, the region has sites well-suited to large-scale hydroelectric development and coal reserves that could potentially serve as major sources of energy for export and domestic use. While less abundant than in other parts of the country, Prairie fish and forest products are also important to the northern regions of the Prairie provinces. Because the Prairie provinces face high transportation costs in reaching tidewater ports, the western and midwestern states represent particularly attractive markets for many of these resource products.

Unlike certain manufacturing industries, resource producers do not generally expect that freer trade arrangements will lead to large increases in exports. Until very recently, basic resource products have faced few trade barriers. However, a number of recent events indicates that the United States is increasingly inclined to limit its imports of natural resource products. The threat of trade barriers in almost every sector where resources are exported to the United States has become a major source of concern within the Prairie provinces and accounts for a good deal of the support found there for the negotiation of a comprehensive trade agreement with the United States. Organizations representing Prairie firms producing oil, natural gas, uranium, potash, nickel, lumber and pulp and paper have all taken strong positions in support of the Agreement.

In the past, American tariffs on resource-based products were used primarily to protect processing activities rather than primary resource production. The resulting pattern of "cascading" tariffs discouraged the processing of Canadian raw materials prior to export. Canadian governments have responded in two ways to offset this bias and encourage resource processing in Canada. They have provided protection in the Canadian market for domestically processed products (e.g. fine and sanitary paper) and they have prohibited the export of unprocessed resources (e.g. uranium, pulp logs and fish). Few of the benefits from either of these policies have been realized in the Prairie provinces, and there is little support for them. Prairie producers and governments have generally favoured an end to such measures in return for assured access for raw resource products to the U.S. market and an end to American tariffs on imports of processed materials from Canada. Such access would encourage more processing closer to the sources of raw materials. However, the construction of efficient, world-scale processing facilities in Canada requires assured long-term access to the American market. The threat of countervailing or dumping actions by U.S. producers remains an impediment to resource processing in Canada. Without protection from such actions the benefits of tariff removal will be limited.

While each resource industry on the Prairies has its own concerns about trade policy, the degree of agreement across sectors on the overall desireability of this trade deal is striking.

3.2.1 Petroleum

The federal government has been pursuing an aggressive policy of deregulation in the energy industry. At this point in time, most forms of energy enjoy virtually free access to the U.S. market. There have been requirements that only energy surplus to Canadian needs be exported but these provisions are not now being enforced. The Free Trade Agreement codifies present practice and does provide considerable security to Prairie producers of oil and gas.

In recent years, Canada has enjoyed a small surplus in its net international trade in crude oil. Large exports from the Prairie region to the United States have more than offset large imports from third countries into eastern Canada.

Over 99 percent of Canada's crude petroleum exports over the past ten years have gone to the United States.[14] The United States, in turn, provides less than 5 percent of Canada's crude petroleum imports.

There has been concern among Canadian oil producers that the government of the United States might impose a tax on all oil imported into the United States.[15] The application of a substantial import levy would cause considerable disruption in the Canadian oil industry. The Free Trade Agreement provides exemption for Canadian oil from such a tax. For many, including former Alberta Premier Peter Lougheed, "The biggest plus of this agreement is it would preclude a federal government from bringing in a National Energy Program ever again."[16]

Restrictions on federal powers have also been welcomed by most producers. In light of the western oil industry's experience with the National Energy Program, the industry welcomes an agreement that restricts the ability of the federal government to discriminate in terms of the location of exploration and development, as the Petroleum Incentive Program (PIP) did, or to discriminate in favour of privately- or publicly-owned Canadian firms.

Low-cost, conventional oil from the western sedimentary basin accounts for about 75 percent of total Canadian crude production. By the year 2005, the National Energy Board forecasts that this proportion will fall to about 25 percent.[17] Much of the remaining oil will come from oil sands, the upgrading of heavy oil, tertiary recovery and off-shore development. Recovery costs are much higher in these cases.[18] At current oil prices, these projects are likely to proceed only with substantial concessions and support from federal and provincial governments. This has raised a concern on the part of some that Canada not sacrifice, as part of a bilateral trade deal, its capacity to support projects of this sort. While support for exploration is specifically permitted under the Agreement, the acceptability of support for other unconventional energy projects is unclear.

The Free Trade Agreement provides that in the event of a shortage each country must provide the other with access in proportion to its pre-shortage market share.

Regulations requiring price discrimination between domestic and export markets are effectively prohibited. The fate of price discrimination in favour of specific domestic users such as farmers or major industrial users is unclear.

It is reasonable to expect exports of oil and gas from western Canada to the western United States to expand, since this is the market that costs the least to reach. At the same time, shipments from western Canada to eastern Canadian markets are likely to be increasingly replaced by imports. Thus the proportion of Canadian oil production going to the United States is likely to rise rapidly over the next few years. The proportion of Canadian production the U.S. has guaranteed access to in the event of a shortage is thus also likely to increase sharply over the next few years.

Under this Agreement, an oil import fee imposed by the United States government would not apply to imports from Canada.

The purpose of such a fee would be to raise U.S. oil prices above world prices, in order to promote the development of U.S. reserves.

In such a case the Canadian government would either have to restrict sales of Canadian oil into the United States market or match the U.S. import fee. The potential windfall for oil producers and governments would generate considerable pressure to follow U.S. actions. However, such an action would undermine the competitive position of energy-intensive industries such as agriculture in world markets.

3.2.2 Natural Gas

Canada has about 4 percent of the world's proven reserves of natural gas and accounts for 3.3 percent of world gas consumption.[19] With present technology, shipment of natural gas by pipeline is much more cost efficient than shipment of liquified natural gas (LNG) by sea. This gives Canada a considerable advantage over offshore producers in serving the American market. However, Canadian producers must still compete with gas from Mexico and from the United States itself. The high cost of shipping LNG reduces the bargaining room of both U.S. users and Canadian exporters since the former have few potential low-cost suppliers and the latter have no alternate customers, at least in the short-run. Over the 1980-1985 period, Canadian natural gas exports, all of which were to the United States, were worth about $4 billion per year. In 1986 and 1987 the value of natural gas exports fell to $2.5 billion per year as prices plunged. By the end of 1987, the average price of natural gas exports was less than half its 1982 level.[20]

The natural gas industry is highly regulated in both Canada and the United States. While many of the barriers to exports have been removed, approval from the National Energy Board is still required for long-term export agreements.

The United States Federal Energy Regulatory Commission (FERC) retains the authority to determine the price at which Canadian gas is sold in the United States. In a recent ruling, FERC has determined that, in the interest of "levelling the playing field," Canadian exporters will not be allowed to pass on certain of their fixed costs, return to shareholders or taxes.[21] The Canadian Petroleum Association and the Independent Petroleum Association of Canada have argued that this decision effectively interferes with Canadian sovereignty since it will make Canadian consumers bear more of the cost of shipping natural gas to American customers. In this case, U.S. regulators argue that they are giving Canadian producers treatment equivalent to their American counterparts. It is interesting that this is precisely what producers in several other industries are seeking.[22]

Canada and the United States have agreed to establish a consultative mechanism to address Canadian concerns about future regulatory measures. This provision does not affect past U.S. regulatory decisions so that the FERC ruling stands as is.

3.2.3 Petroleum Services

The petroleum service industry in the Prairie provinces accounts for as much employment as does oil production proper: about 30,000 workers in 1985.[23] This segment of the industry is extremely sensitive to the state of oil exploration and development. It is made up of a wide variety of service, supply and manufacturing concerns. While the industry as a whole has a strong stake in the expansion of oil exports and is ideologically predisposed to support free trade, many in the service and supply industry share the fears of small producers in other sectors. Five concerns raised by the Petroleum Services Association are: (1) the advantage American competitors might enjoy due to lower overhead costs; (2) the size advantage of American firms and the possibility of them dumping products in Canada; (3) the possible closure of Canadian manufacturing facilities by U.S.-based companies; (4) the impact of higher Canadian taxes; and (5) the possible subsidization of U.S. firms through investment tax credits, industrial revenue bonds, economic enterprise zones, etc.[24] There is a recognition within the industry that provincial regulations and programs have led to fragmentation of the Canadian industry and that this could impair firms' ability to compete effectively against their American counterparts.

While the industry is cautious in its attitude to free trade with the United States, it is adamant in its support for free trade *within* Canada.[25] As with several other industries, the development of an industry capable of competing internationally requires the removal of interprovincial barriers very early in any transition period. Little progress in this area is apparent.

Despite some concerns about bilateral free trade, the industry also recognizes a number of benefits such an arrangement may provide, including the levelling of seasonality, increased uniformity of equipment, the opportunity to be part of large international projects normally assembled in Texas, and the opportunity to export Canada's world-leading technology in certain aspects of the industry such as cold weather service and sour gas control.

3.2.4 Electricity

Canada enjoys a number of advantages in the production of electricity, particularly in light of rising concern in the United States over nuclear safety and acid rain. This creates great potential for exports of electrical power to the United States and has led to an increase in exports from 2,400 gigawatt hours in 1970 to more than 40,000 gigawatt hours in 1985. Whereas electricity exports used to be confined to short-term surpluses, we have seen in recent years the development of a number of schemes dedicated largely or entirely to export, including the James Bay II Project in Quebec and the Limestone Project in Manitoba. The possibility of the generation of electricity from Alberta coal specifically for export to the United States is also apparently cost efficient.[26] Alberta is also exploring the viability of a 1,700 megawatt hydro plant on the Slave River.

While over 80 percent of Canadian power exports currently come from eastern Canada, there is very substantial potential for increased shipments from western Canada to the western states where U.S. power costs are currently three to four times those in western Canada.[27] To achieve this, however, regulatory and political hurdles will have to be overcome.

The growth of Canadian electricity exports has already raised strong opposition from U.S. coal, utility and labour groups for a variety of reasons.[28]

American critics claim that Canadian environmental regulations are lax insofar as they apply to utilities and that this gives a significant cost advantage to these firms. The refusal of firms like Saskatchewan Power to install scrubbers in coal-burning plants at the same time that Canada mounts an aggressive campaign against acid rain in the United States is particularly galling to American utilities.

The use of power projects as economic development tools by provincially owned Crown corporations in Canada is also viewed as unfair competition. The negotiation of long-term contracts that guarantee power at prices below the future costs of American utilities is seen as evidence that economic criteria are being ignored in Canadian utilities' search for export markets. Manitoba Hydro is reportedly using a pricing formula based on 80 percent of future U.S. utility costs, for example.[29]

Even some Canadian natural gas producers see these electricity exports as unfair competition since Crown corporations do not pay royalties or corporation taxes.[30]

Access to United States markets for Canadian electricity would require the mandatory provision by U.S. utilities of transmission facilities at a reasonable price and/or the provision of right-of-way by American regulators. Given the seventy-year life expectancy of hydroelectrical facilities, Canadian utilities require assurances against unilateral abrogation of market access.[31] The Free Trade Agreement does appear to provide such assurances.

Canada agreed in the Free Trade Agreement to eliminate its provision requiring that export prices be not "materially less" than the least-cost alternative of the [American] purchaser. This opens the possibility of price competition among Canadian utilities for American customers. However, the Canadian provision that export prices not be below prices for comparable sales in Canada may continue to create an effective floor price.

American utilities and coal producers can be expected to mount a major campaign against Canadian electricity exports prior to ratification of the Agreement.

The question of Canadian Crown corporations using hydro development projects as subsidized job-creation schemes is likely to be addressed by the Working Group in its ongoing negotiations.

3.2.5 Potash

Saskatchewan is estimated to have approximately three-quarters of the world's known potash reserves.[32] In 1985, potash shipments were valued at $622 million, down from a peak of just over $1 billion in 1980.[33] Over 60 percent of potash shipments went to the United States.[34]

Saskatchewan potash enjoys a 23-37 percent extraction cost advantage over competitors in New Mexico, due to its high quality and large uniform seams.[35] Despite the uncompetitiveness of U.S. mines, American producers have blamed their financial difficulties on a worldwide glut arising at least in part from the actions of state-owned producers in France, the German Democratic Republic, the Soviet Union, Israel, Italy, Spain and Canada. Since Canada supplies 70-80 percent of the American market, it is the main target of American protectionist measures. In addition to the immediate loss of sales and profits that the imposition of U.S. duties caused, Saskatchewan producers believe that the impact of such duties on U.S. prices could have three other effects which would hurt the market position in the longer term by: (1) keeping uneconomic mines in New Mexico operating; (2) encouraging the development of other American deposits in Utah and Michigan; and (3) discouraging potash use by American farmers.

The agreement by Saskatchewan potash producers to raise prices in response to U.S. anti-dumping action will result in higher prices in the U.S. and will produce the long-term effects Canadian producers hoped to avoid. This case points up the dangers associated with the Agreement's dispute settlement procedure. There is nothing in the agreed-to provisions to prevent producer groups in any industry from using U.S. trade law to force Canadian producers to agree to undesireable pricing strategies.

The Saskatchewan Potash Producers Association had sought the creation of a binational arbitration commission with binding power to enforce clear rules for trade. It noted that a major advantage of such a body over current procedures is to weaken the influence of regional interests relative to national interests.[36] While the Association focuses on the relation between regional and national interests in the United States, it is equally true that such a mechanism would also place limitations on the ability of regional interests in Canada, represented primarily by provincial governments, to distort markets in the interest of local employment.

3.2.6 Uranium

Currently Canada is the largest supplier of uranium to the United States for civilian purposes. Most of this uranium comes from Saskatchewan, which accounts for over 10 percent of world production; 30 percent of western Canada's uranium shipments are destined for the United States.

American mines are high cost and uncompetitive with the Saskatchewan mines. Nevertheless, the United States maintains its mines because of the strategic importance of the mineral to the American military.

The Agreement removes two key restrictions on the flow of Saskatchewan uranium to the United States: (1) the United States removes its legislative restriction on the enrichment of Canadian uranium; and (2) Canada removes its requirement that uranium exports be upgraded to the maximum extent possible in Canada prior to export.

These changes do provide Saskatchewan uranium with privileged access to the U.S. market. This should yield a price premium as long as third-country uranium remains subject to the restriction on processing in the United States. Were Canada to effectively displace the remaining American production, there would be little to be gained by the United States in continuing to protect an industry located primarily in Canada. Hence, the price premium would be short-lived.

It is unlikely, however, that the United States will be willing to allow Canadian uranium to fully supplant U.S. production so long as Canadian production is restricted to peaceful purposes.

This Free Trade Agreement does not override defense considerations in the United States. Continued protection of U.S. mines is inevitable unless Canada (or some other country) provides an absolute and permanent guarantee that it would provide uranium for weapons. This was not agreed to. It could well be a topic in ongoing negotiations.

3.2.7 Forest Products

In 1980, the forest industry accounted for 1.0 percent of total employment in Alberta, 0.5 percent of employment in Saskatchewan and 1.1 percent of employment in Manitoba.

There is deep division in the industry over the issue of free trade, with most primary producers seeing it as essential and most producers of more heavily processed products opposing the concept. Prior to the recent imposition of duties, modernization and lower exchange rates had made producers of softwood, pulp and paper, veneer, shingles and such partially processed products as panelboard and waferboard very competitive with firms producing similar products in the United States.[37] In contrast, producers of fine and specialty paper, boxboard, containerboard, and building components had over the years responded to cascading tariffs in both Canada and the United States by building factories designed to produce a wide range of products for the small protected Canadian market. These producers will face considerable disruption as a result of the bilateral Agreement.[38] Few of these highly protected and endangered industries are significant in the Prairie provinces. There is thus a regional division within the forest products industry over the issue of free trade with producers of higher-valued paper products concentrated in the east and a concentration of exporters of lower value-added products in the west.[39] The former tend to oppose free trade while the latter favour it. Even small prairie firms who do little exporting tend to favour free trade since they fear increasing U.S. protectionism will cause B.C. wood to back up into their traditional markets and reduce prices.[40]

The Free Trade Agreement does not override the agreement requiring Canada to impose a 15 percent export tax or equivalent royalty charges on softwood exports to the United States.

The Agreement does provide that duty-free treatment will be restored for shakes and shingles at the conclusion of the current action. This would have happened in the absence of the Agreement unless further trade actions were launched. U.S. officials have indicated in briefing notes for Secretary Baker and Ambassador Yeutter that they believe that, had the agreed-to provisions been in place at the time of the shakes and shingles action, "there would have been no major difference" in the action on shakes and shingles.[41]

The Agreement also provides that both governments retain their prohibitions on pulp log exports. This prohibition has played an important role in the development of the Canadian pulp industry. While the Agreement grandfathers this clause, the use of similar provisions to promote Canadian resource processing is clearly prohibited.

The Free Trade Agreement also requires Canada Mortgage and Housing Corporation to review its evaluation of American plywood for use in CMHCfinanced housing and, if necessary, to submit these evaluations to an impartial panel of experts. This could hurt Canadian plywood producers.

3.3 Manufacturing

Manufacturing accounts for a much smaller proportion of economic activity in the Prairie provinces than it does in Ontario and Quebec. In 1986, for example, manufacturing represented only 12.4 percent, 5.2 percent and 7.4 percent of the Gross Domestic Product of Manitoba, Saskatchewan and Alberta, respectively. For the country as a whole, manufacturing accounted for 21.5 percent of total Gross Domestic Product.[42]

The composition of manufacturing in the Prairie provinces also differs from that of central Canada. As indicated in Table 5, secondary manufacturing is proportionately much less important than in central Canada.

TABLE 5

EMPLOYMENT WEIGHTS IN MANUFACTURING SUBSECTORS, 1975-1983
(PERCENT OF TOTAL EMPLOYMENT)

	Local	Primary	Secondary
Manitoba	3.9	2.3	7.6
Saskatchewan	2.2	1.3	2.2
Alberta	2.6	2.3	3.8
Quebec	3.8	5.5	13.2
Ontario	4.0	4.7	15.7

Source: Harry H. Postner and Leslie M. Wesa, "Employment Instability in Western Canada: A Diversification Analysis of the Manufacturing and Other Sectors," Economic Council of Canada Discussion Paper No. 275, 1985, p. 225.

Local and primary manufacturing activities are likely to be less severely affected by a move to free trade than is secondary manufacturing.

Many local industries enjoy natural protection from external competition by virtue of the fact that the product involved is either bulky or perishable. Other local manufacturing industries engage in custom production that requires close and regular consultation between producers and customers. This too is a form of natural protection that would survive free trade.

Most primary manufacturing sectors enjoy the advantage of cheaper access to resource inputs. For many of these industries access to large markets is essential. Most primary manufacturers support bilateral free trade as a means of preventing the erection of U.S. trade barriers in their industries.

Primary industries have been increasingly subjected to countervailing and anti-dumping actions under U.S. trade law.

In contrast, protection of secondary manufacturing more often takes the form of tariffs and quotas which are to be swept away with free trade.

Secondary manufacturing tends to locate where there is a stable and experienced manufacturing work force and where wages are competitive with other producing regions. Resource booms such as those experienced from time to time in Alberta and Saskatchewan tend to "crowd out" manufacturing activities that are mobile by bidding away labour and other scarce resources.[43] Manitoba, in contrast, has experienced steady growth in secondary manufacturing, in part because of its more limited resource base and the ensuing stability of wages and labour supply in the province.

A variety of manufacturing activities have located in the Prairie provinces as a result of interprovincial barriers and local preference provided by governments and Crown corporations. These industries would be particularly vulnerable under a free trade arrangement which removed interprovincial barriers that have led them to locate in each province and have prevented them from developing production runs adequate to minimize costs. Interprovincial barriers of this sort have also tended to promote inefficiency and oligopoly by restricting competition.

While the Prairie provinces are export-oriented because of their resource dependence, the same is not true for Prairie manufacturers, with a few important exceptions. In 1979, only 2.8 percent of Prairie manufacturers reported that exports from Canada accounted for more than 50 percent of their shipments. Nationally 7.6 percent of manufacturing firms exported more than half of their production. Eighty-one percent of Prairie manufacturers had no exports, compared to less than 70 percent of manufacturers across the country.[44]

A number of individual manufacturing sectors have particular concerns about, or interests in, freer trade.

3.3.1 Steel

Western Canada accounts for 12 percent of Canada's total steel production. IPSCO, with plants in Regina, Calgary and Red Deer, accounts for a large proportion of the steel production in the Prairie provinces. The company estimates that it accounts for over 35 percent of Saskatchewan's Gross Domestic Product in manufacturing.[45] In its last fiscal year the company had sales to the United States of $34.7 million, up from $5.9 million three years earlier.[46] The specialization and scale of a modern steel firm requires markets larger than the Prairie oil patch. For a Prairie steel producer, the north central states represent a large natural market, partially insulated from competitors by transport costs. In contrast competitors with direct access to water transport enjoy transport cost advantages in serving overseas markets.

IPSCO has faced both tariff and non-tariff barriers in the U.S. market in recent years. It has been subjected to heavy import duties, to marketing standards that effectively prevent the export of some kinds of pipe, and to firm-specific countervailing duties in response to government assistance the company has received over the past fifteen years.

Through the trade negotiations, IPSCO sought the immediate removal of tariffs between Canada and the United States, exemption from "voluntary" export restraints and "national treatment" in the United States. Company officials recognized that achieving "national treatment" in the U.S. would require Canada to agree to abide by strict rules on subsidies to industry but they believed the benefits from unrestricted access to the U.S. market were worth the cost.[47]

Canada failed to win either exemption from voluntary export restraints or an effective system of dispute resolution. As a result, IPSCO is now considering the establishment of a plant in the United States.

A continuing concern of the steel industry is the U.S. definition of dumping as sales at prices that fail to cover full costs of production. This is entirely unrealistic for industries like steel and petrochemicals that require long production runs even if that occasionally requires sales at less than full costs of production. The steel industry will undoubtedly push for ongoing negotiations on this issue within the Working Group and elsewhere.

3.3.2 Beer

The brewing industry claims to provide over 24,000 direct and indirect jobs in the three prairie provinces.[48] Many of these jobs are in the distribution and promotion areas and are not dependent on the level of brewing activity that actually takes place in the Prairie provinces. Those jobs would not be jeopardized by a move to free trade. Nevertheless, there is good reason to accept the brewers' contention that free trade with the United States would lead to large job losses in this industry, particularly in provinces with relatively small populations.

Regulations that prohibit interprovincial beer sales have produced an industry structure where productivity is only about one-third U.S. levels and where many plants are located far from major markets. Industry representatives estimate that even if American beer producers did not make inroads into the Canadian market under free trade, almost two-thirds of the production workers in the Canadian brewing industry would be displaced by domestic rationalization following the removal of interprovincial barriers.[49] Since production by the major breweries would be concentrated near major markets, the proportional drop in brewing on the Prairies would be even greater.

Not surprisingly, the brewing industry strongly opposed a bilateral free trade agreement that would expose it to unrestricted competition with American brewers. The beer industry, with the reported support of provincial premiers, won exemption from the Free Trade Agreement.

The action launched by European nations under GATT may undermine this protection.

3.3.3 Petrochemicals

The large secure supply and low price of natural gas in Alberta in the 1970s appeared to make Alberta an ideal site for a world-scale complex of petrochemical plants and petrochemical users. By 1979, there were projections that, between 1980 and 1990, multinationals would invest $9.3 billion (U.S.) in the Canadian petrochemical industry.[50] Canada's subsequent movement to international prices for natural gas, speeded by the fall in world petroleum prices, has largely removed the incentive for new investment in the Canadian petrochemicals industry. What is left is a smaller, state-of-the-art industry designed to produce long production runs to serve large markets. This industry employs 5,500 workers directly and consumes 12 percent of Alberta's natural gas production.[51] The industry must export three-quarters of its production in order to remain competitive.[52]

Access to the U.S. market is essential to the survival of this industry. The second stage in the development of the petrochemical complex — the attraction of petrochemical-using manufacturers to locate adjacent to petrochemical plants — requires that the products of those plants also have unhindered access to the large U.S. market. Kendon, Cullen and Kerr (1986) provide a more detailed explanation of other issues of importance to the petrochemical industry in bilateral trade negotiations such as the definition of dumping.[53]

The removal of tariffs on petrochemicals is an important victory for this industry but the American definition of dumping remains a potential threat to exports. The industry will undoubtedly push for ongoing negotiations to arrive at a more reasonable definition of dumping.

3.3.4 Farm Implements

A Prairie Implement Manufacturers Association survey shows that the industry is made up of over 100 firms with 1,113, 2,944 and 4,757 employees in Alberta, Saskatchewan and Manitoba, respectively.[54] In the latter two provinces, the industry's value of shipments ranks second only to meat packing among manufacturers.[55]

Exports account for 26 percent of sales by Prairie implement producers.[56] While de facto free trade in agricultural equipment between Canada and the

United States has existed since 1944, there remain a number of irritants including duties on parts and the refusal to allow Canadian service people into the United States. PIMA believes that these problems can best be addressed through a sectoral trade agreement.

Implement producers are generally positive about the Free Trade Agreement. However, some have expressed concern about the possible consequences of the Agreement for the exchange rate. The industry believed that it was competitive in the northern United States and would remain so as long as the Canadian dollar did not appreciate substantially. It is surprising how seldom other industries express this concern. As we will see in the next section of this report, one of the major studies of the results of free trade concluded that free trade would produce an increase in wages and/or exchange rates of approximately 25 percent.[57] For most industries, that effect would far exceed the direct effect of tariff removal.

3.3.5 Clothing

The Manitoba clothing industry employs about 7,000 workers.[58] Nationally, clothing exports to the United States account for less than 10 percent of production.[59] The industry was divided on the issue of trade liberalization, with older firms that produce standard goods seeing a need for increased protection and some of the newer firms that produce fashion goods feeling confident that they could compete effectively against U.S. producers in selected lines.[60]

Peter Nygard, the clothing manufacturer who led the fight *for* free trade within his industry, has bitterly rejected the deal. Nygard concluded that a clause restricting duty free access to garments made exclusively from North American fabric ensures that the Canadian clothing industry will be a big loser.[61] While the final text provides Canada with a quota for duty free entry of clothing made from imported fabric, this remains a major barrier to rationalization of the Canadian clothing industry to serve U.S. markets.

Union leaders in the garment industry claim that the Agreement could eliminate 80 percent of the 150,000 jobs in the Canadian garment industry.

3.3.6 Fabricated Metal Products

This industry employs over 12,000 workers on the Prairies.[62] It produces a large variety of products, many of which are custom designed to meet the needs of specific clients. Under any trade regime, proximity to clients will continue to provide these custom firms with a major advantage.[63] There are also many firms producing small volumes of standard product for the Prairie market, including a number of subsidiaries of American firms. Many of these might not survive unrestrained competition with larger American-based producers. The United Steelworkers has identified a number of firms employing Steelworkers in Saskatchewan that would be in jeopardy under a free trade arrangement: Precision Service and Engineering, Smith Rolles, Westank-Willox, Federal Pioneer, Canada Wire and Cable and Inventronics.[64]

3.4 Services

The service sector includes health, education, sports, recreation, accounting, consulting, computer services, accommodation, food services, public administration, wholesale and retail trade, banking, investment, insurance, transportation, communications, storage and utilities. These industries account for close to 70 percent of employment in the Prairie provinces.[65]

As in the rest of the industrial world, service industries have accounted for most of the employment growth in the region in recent years. The growth in services reflects three main developments: the transfer of activities previously carried out elsewhere in the economy, the development and application of new technology, and an aging population.

The transfer of activities to the service sector has two main causes: (1) the rapidly rising participation rate of women which has led to the commercialization of household services such as food preparation; and (2) the recognition by large firms in the goods-producing sector that services such as accounting, computing services, engineering, legal services, management development and distribution can often be purchased more cheaply from specialized firms than they can be produced internally. Even were there no change in the volume of these services used, their transfer to specialized service firms would be reflected in a rise in measured service sector activity.

The second cause of rapid service sector growth is the development of information and communication technology that has dramatically reduced the cost of these services. This has led to the rapid growth in demand for these services by both producers and consumers. In the American economy, for example, the value of intermediate services such as advertising, design and distribution as a proportion of the price of goods rose from 29 percent in 1947 to 37 percent in 1977.[66]

The aging of the population has also led to rapid growth in the health care and welfare services sector. This promises to be an even more important factor in the future.

Four service industries accounted for more than half the total new jobs created in the entire economies of Manitoba and Saskatchewan between 1971 and 1981: accommodation and food; services to business; health and welfare; and retail trade. In Alberta, the proportion of employment growth accounted for by these industries was somewhat less due to rapid growth in construction and oil industry employment.[67]

Most service industries have traditionally been sheltered from international competition. In 1985, services accounted for only 11.5 percent of Canada's exports of goods and services and 16.3 percent of imports.[68] Of this service trade, about one-third is composed of services purchased by travellers and therefore does not represent the provision of services across borders. However, trade in services is growing rapidly.

There are several parts of the service sector that could be seriously affected under a free trade arrangement. A recent Ontario government study identified banking, culture and broadcasting, the investment dealer industry, telecommunications and transportation as industries that could suffer significant harm under a free trade pact and business services as an industry that could potentially gain.[69]

Canada had a $2.4 billion deficit on trade in business services with the United States in 1984 and a $200 million surplus in business services trade with the rest of the world.

American-controlled firms operating in Canada run a large deficit in their trade in business services. In 1984, such firms paid $3.6 billion dollars for business services from abroad and received $1.1 billion dollars for business services exported. In contrast, Canadian-controlled firms had a significant surplus, exporting $3.1 billion worth of business services and importing $2.4 billion in 1984.[70]

3.4.1 Business Services

Larger management consulting companies support the Free Trade Agreement. They note four ways in which Canada would benefit: (1) increased specialization in a larger market will lead to increased productivity in the consulting industry itself; (2) the international transfer of technology will be speeded up; (3) freer trade in consulting will allow Canadian firms a wider variety of sources of expertise and therefore will improve Canadian business management; and (4) increased access to the U.S. market would expand the export opportunities for Canadian management consultants. The main concern of these consulting firms has been to get U.S. immigration regulations to recognize that Canadian consultants working on contract in the United States ought to be viewed as deliverers of exported services, not as employees of the American firm purchasing the services.[71] The Free Trade Agreement does appear to provide access that accomplishes this goal.

Given the investment provisions in the Agreement, foreign ownership in Canada is likely to rise. This can be expected to lead to a further increase in the deficit in business services, particularly since both the service and investment sections severely limit Canada's capacity to discourage the use of foreign services or to encourage the use of domestic services.

Imports of business services into the Prairie provinces are about six times as large as are business service exports from the region. In 1983 and 1984, the region accounted for only 3 percent of Canadian business service exports.

The combination of the service and investment sections of the Agreement with the recent drive toward privatization in certain western provinces seems to present the possibility that a number of government services could in the near future be delivered by American firms.

The American summary of the Agreement also notes that the two parties have agreed to "disciplines on public monopolies" in the service sector. This suggests that even those Crown corporations not privatized are likely to face both limitations on their range of activities and competition from private interests, both Canadian and American.

Within the service sector, a number of industries are concerned over the transborder flow of computer services. The banks, consulting companies and IBM Canada Ltd. strongly opposed barriers to international transmissions of data and computer services.[72] On the other hand, the Canadian Independent Computer Services Association (CICSA) cited a Price Waterhouse study that estimates Canada's 1985 trade deficit in computer services at $1.3 billion. CICSA argued for strong government measures to ensure that multinationals and others process data in Canada.[73]

The Free Trade Agreement contains a series of measures that "ensure the further development of an open and competitive enhanced telecommunications and services market."

From the perspective of the Prairie provinces, the free flow of data is likely to cost few jobs and to result in cheaper and better services and products.

In the banking industry, restrictions have been imposed to ensure that data on Canadian banking transactions are maintained in Canada. The banks accept this as a necessary restriction in maintaining an effective inspection system in Canada but warn of the danger of expanding these restrictions in an effort to protect Canadian jobs.[74]

3.4.2 Banking and Financial Services

For several industries within the service sector, cross-border trade in services requires the right to establish a delivery capacity within the importing nation. It is thus not possible to isolate the question of trade in services from questions of investment and immigration. The need to establish local facilities also implies the need to conform to local regulations and restrictions.

However, differences in regulatory practices could effectively exclude foreign operations and thus serve as barriers to trade.

An overriding concern of Canadian banks has been the provision in U.S. commercial law that prohibits interstate banking. With "national treatment," Canadian banks, like their American counterparts, could be restricted to the single state in which they incorporate. Canadian banks were adamant that "there's no way we are going to trade all of Canada for New York!"[75] Without overcoming this barrier, Canadian bankers would see one of its main areas of skill, the ability to run a large branch banking system, nullified. The present Agreement does not provide the desired access.

Two other sources of concern for Canadian bankers are the likelihood of increased foreign ownership in the Canadian banking sector and the possibility of the U.S. attempting to apply U.S. law to American banks operating in Canada. Both of these developlments could endanger Canada's capacity to control its financial system.[76]

In the summary of agreements on the financial services industry, Canada agreed:

(1) to provide national treatment for U.S. nationals and U.S.-controlled companies in the purchase of shares in Canadian-controlled financial institutions;

(2) to provide exemption for U.S. bank subsidiaries from the limitation on total domestic assets of foreign bank subsidiaries in Canada;

(3) not to use review powers governing the entry of U.S.-controlled financial institutions in a manner inconsistent with the aims of this agreement;

(4) to continue to provide U.S.-controlled financial institutions established under the laws of Canada with rights and privileges they now have in the Canadian market.

The United States agreed:

(1) to permit domestic and foreign banks to deal Canadian bonds in the United States market in a fashion comparable to American bonds;

(2) to treatment for Canadians consistent with two sections of the International Banking Act;

(3) to equal treatment between Canadian and American financial institutions under the Glass-Steagall Act liberalizing banking regulations;

(4) to continue to provide Canadian-controlled financial institutions with the rights and privileges they now have in the U.S. market.

Equal treatment after changes to the Glass-Steagall Act may provide access for Canadian banks to interstate branch banking in the United States. There is, however, no guarantee that this will in fact happen. The Agreement implicitly recognizes Canada's right to set rules for foreign-owned banks in Canada but effectively prohibits any future attempt to roll back the rights of U.S. banks in Canada, except insofar as the rights of all banks are limited due to "normal regulatory and prudential considerations."

With respect to investment dealers, recent legislative initiatives in Ontario and Quebec have largely opened that industry to foreign firms.

3.4.3 Culture and Broadcasting

There are currently in place a number of measures to protect and support Canadian cultural institutions including Canadian content rules, restrictions on the tax deductibility of advertising in foreign periodicals, commercial substitution on cable stations, preferential postal rates for Canadian magazines and hiring preference in the performing arts. There was great concern within the cultural community that these provisions might be bargained away. As a result, cultural groups such as the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) vehemently opposed the inclusion of cultural industries in the free trade deal.[77]

The Agreement does require Canada to eliminate restrictions on the deductibility of advertising expenses in foreign-printed periodicals, and to provide copyright protection for television retransmissions. An earlier agreement to end discriminatory postal rates was dropped in the final text.

While the Agreement does exempt cultural industries, narrowly defined, from the provisions of the Agreement, the United States has been granted the right to "take measures of equivalent commercial effect in response to actions that would have been inconsistent with this Agreement but for [the culture exemption]."

Despite protestations by advocates for the Agreement, this last clause may prove damaging and divisive to Canadian society. In response to a Canadian cultural measure that the United States finds irksome, one can expect that the United States will impose an equally irksome measure of equivalent commercial effect on some sensitive sector of the Canadian economy. The effect of this will be to set the victims of this retaliatory action against the Canadian cultural beneficiaries. The divisive effect of this sequence of actions will serve as a strong disincentive for the Canadian government to exercise its hard won cultural sovereignty.

American briefing material also indicated that the Canadian government "promised to solve Jack Valenti's problem on film distribution within the next two weeks [the Film Distribution Bill previously promised Canadians by Flora MacDonald]."[78]

3.4.4 Telecommunications

The Free Trade Agreement maintains the monopoly Canadian telecommunications firms enjoy in basic services within their jurisdictions.

Enhanced telecommunications services, the fastest growing part of that market, will remain open to unimpeded competition. The providers of basic service are required to grant providers of enhanced service non-discriminatory access to the basic system.

The "monopoly service providers" are also prohibited from using "unreasonable cross subsidization or other anti-competitive practices" to aid their competitive position in the provision of enhanced services. The full effects of this agreement are uncertain. It is unclear, for example, whether the use of revenue for the basic telephone system to develop and market a teletext system to serve farmers would be acceptable.

The Agreement makes no provision for the fact that what is considered "basic service" in telecommunications is likely to become much broader in the coming years. The use of Crown monopolies to meet growing needs in this field seems to be severely restricted.

3.4.5 Transportation

For both trucking and air transport, freer trade between Canada could shift trade patterns from the current east-west focus to a north-south one. There was considerable concern in both industries that, in such a framework, Canadian destinations would be served by existing U.S.-based firms through a northward extension of existing transport routes. While Canada has large and relatively efficient carriers in the air passenger business which could cônceivably benefit from increased access to the U.S. market, effective competition would require very substantial rationalization and deregulation of the Canadian network. This could lead to a deterioration of the service offered to smaller Prairie centres.

Agreement to drop references to free trade in transport services in the final text is thus a positive development.

3.4.6 Other Services

There is a good deal of concern among public sector unions that a free trade pact could pose a threat to social programs in Canada. While the fear that Canada might negotiate away its right to provide public health care, unemployment insurance and other similar services seems to be subsiding, there remains the concern that these services might be threatened indirectly. If a free trade pact led to much more intense competition for Canadian industry, it is argued, business interests might launch a campaign to bring Canadian taxes down to American levels through the elimination of, or the erosion of, services that are publicly provided in Canada. In the absence of such a change, business might argue, Canada will fail to attract industry in an open North American economy and will suffer severe unemployment as a result.

Equally worrisome is the possibility that Canada might become committed to principles that limit its ability to respond creatively and autonomously to new circumstances. For example, while there is at present little danger of large scale incursions by American suppliers into our education system, the technology of communications and information sharing is developing so quickly that the transborder transmission of a wide variety of educational services is quite conceivable in the near future. Provisions that prohibited local or national preference in the purchase of educational materials except in special circumstances could lead to a situation where the onus fell on educational authorities to prove in each case the special need for Canadian or local content in the educational curriculum. Similarly, one could envisage situations where profit-oriented health delivery firms would demand the right to bid on the provision of a variety of services to the health care system.

In the service sector, free trade offers the possibility of better and cheaper services in certain limited sectors. For service-providing industries, it promises little opportunity for market expansion. Free trade also presents serious dangers. The need for a presence in order to deliver many services is bound to bring about conflict over regulatory differences in the two countries and to create pressure for harmonization of taxation, spending and regulatory policies. As in other sectors, the overwhelming size difference will ensure that harmonization involves primarily the adoption of American standards by Canadian industries and governments.

Little research has been carried out to determine the likely development of technology to facilitate trade in services over the next few decades. Given the rapidly growing importance of service employment and the rapidity with which that technology is evolving, it would be most inappropriate to negotiate a long-term binding agreement on trade in services that applies principles which are designed to improve trade in merchandise, without leaving room for the special nature of trade in services.

3.5 Investment

Canada's attitude toward direct foreign investment has been erratic. In the 1950s and 1960s, foreign investors were welcomed with open arms. In the 1970s, Canada applied increasingly strict standards on foreign firms requiring them to demonstrate that their takeovers of Canadian firms would provide benefits for Canada. These requirements included employment commitments, local procurement, export commitments and the performance of research and development in Canada.

While these requirements were never policed very effectively, they did at least force foreign investors to examine their behaviour to recognize and deal with their tendency to neglect Canadian interests. These provisions did discriminate against foreign firms. Some analysts suggested that a better solution would be a general code of conduct for all business above some threshhold size in Canada.

Over the past four years the Foreign Investment Review Agency has been replaced with Investment Canada, a Welcome Wagon Club for foreign investors.

The Agreement has four main provisions:

> (1) it raises over a four-year period the minimum size above which takeovers of Canadian firms will be subject to review to $150 million in assets;
>
> (2) an end to review of indirect takeovers (i.e., the acquisition of a Canadian subsidiary as the by-product of the takeover of a parent firm;
>
> (3) an end to requirements for local sourcing, local production or local equity participation for American firms and for investors from third countries where these requirements would affect bilateral trade between Canada and the United States;
>
> (4) an agreement to make these provisions binding on future Canadian governments.

These provisions seriously erode the sovereignty of the Canadian government. They even seem to prevent the application of a general code of conduct for all businesses operating in Canada insofar as such a code addresses issues like export performance and local sourcing.

3.6 Sovereignty

The Agreement does, of course, limit the sovereignty of Canadian governments; that is, in fact, the aspect of the Agreement that has received much praise in the west. The two most obvious examples of this are the investment and energy provisions.

From the beginning, many economists have seen a binding deal with the United States as the best means of achieving what they really want — an economy driven increasingly by the market.

One may expect that the main thrust of the second round of negotiations will be to extend and entrench the rule of the market in a much wider range of sectors, particularly those that fall under provincial jurisdiction.

3.7 Social Programs

Does the Free Trade Agreement threaten Canadian social programs? Not directly.

We have noted that the U.S. Congress is now considering legislation that will likely define "unfair subsidies" in a very broad fashion.

This legislation will apply to Canada. And the Working Group will negotiate conditions that are even more stringent to limit the ability of Canadian governments to provide Canadian firms with advantages over their American counterparts.

Possible concerns include provincially-funded medicare; the Canadian Pension Plan, to the extent that it is more generous than the American social security program; U.I.C.-financed maternity leave; and a Guaranteed Annual Income to the extent that this can be portrayed as a wage subsidy to low-income workers.

Equally important, business in Canada can be expected to step up its attack on programs that require higher taxes in Canada than in the United States. This attack will occur with or without free trade, but free trade will intensify the pressure.

NOTES

[1] See T.K. Warley, "What Would Free Trade Mean To Agriculture?" Address to the Southwestern Ontario Farmers' Week, Ridgetown College of Agricultural Technology, 1986, p. 13.

[2] There is one exception. The Saskatchewan Milk Producers Association has argued that it does not know enough about the likely effects of a bilateral free trade arrangement to either support or condemn such a pact at this time. Source: SMPA Submission to Saskatchewan Trade Consultations, August 1986.

[3] See E.L. Menzies and B.E. Prentice, "Barriers to Trade in Agricultural Products between Canada and the United States," USDA Staff Report, April 1983.

[4] For a detailed discussion of agricultural support measures employed in the United States, see B. Wilkinson and M. Ghazvini, "Agricultural Trade in a Canada-U.S. Free Trade Agreement," in M. Molot and B. Tomlin, eds., *Canada Among Nations, 1985* (Toronto: James Lorimer and Co., 1986).

[5] Warley, *op. cit.*

[6] Deloitte, Haskins & Sells Associates, *Canadian Agricultural Trade Issues* Vol. 1 (Report prepared for Prairie Pools Inc., 1985), pp. 45-46. This study estimates that with a free trade environment (excluding dairy), annual net increase in western farm income in 1995 would be $60 million. With current policies in place, annual net increase in western farm income would be $102 million. This net cost of free trade versus current policies is therefore $42 million.

[7] W. Merkin, "The U.S. Perspective," in S. Peitchinis, ed., *Free Trade with the United States: Implications for Alberta and Canada* (Calgary: Proceedings of a Conference Organized by the Economic Society of Calgary and the Calgary Chamber of Commerce, 1986), pp. 113-14.

[8] J. Forbes, R. Hughes and T. Warley, *Economic Intervention and Regulation in Canadian Agriculture* (Report prepared for the Economic Council of Canada and the Institute for Research on Public Policy, 1982), pp. 49 and 60.

[9] Ibid., p. 60.

[10] Ibid., p. 140.

[11] Ibid., p. 145.

[12] *Maclean's*, 9 November 1987, pp. 37-38.

[13] Economic Council of Canada, *Western Transition* (Ottawa: Queen's Printer, 1984), p. 28.

[14] *Bank of Canada Review* (April 1988), Table J9.

[15] See H. Maciej, "Implications for the Petroleum Industry," in Peitchinis, *op. cit.*, pp. 13-19.

[16] Quoted in National Liberal Caucus, *Reaching Out, A Liberal Alternative to the Canada-U.S. Trade Agreement*, December 1987, p. 30.

[17] National Energy Board, *Canadian Energy: Supply and Demand, 1983-2005, Summary Report*, 1984.

[18] For a summary, see B. Wilkinson, "Canada's Resource Industries: A Survey," in J. Whalley (1985b), *Canada's Resource Industries and Water Export Policy*, Research Study 14, Royal Commission on the Economic Union Development Prospects in Canada, p. 40.

[19] Ibid., p. 44.

[20] *Bank of Canada Review* (April 1988).

[21] *Globe and Mail*. 9 January 1987.

[22] See J. Feick. "Implications for the Petrochemical Industry." in Peitchinis. *op. cit.*. pp. 2-12.

[23] Petroleum Services Association of Canada (PSAC). "Canada U.S. Bilateral Trade Negotiation Presentation to the Saskatchewan Trade Negotiation Secretariat." July 1986.

[24] Ibid.. p. 6.

[25] H.W. Godwin. "Perspective of the Petroleum Services Association of Canada." in Peitchinis. *op. cit.*. pp 20-22.

[26] A. Kwaczek. M. Asgar-Deen and W. Kerr. "Electricity: Issues in Free Trade." *Western Economic Review* 5 (Spring 1986). p. 17.

[27] Ibid.. p. 16.

[28] See "Canada assailed on tactics as electricity sales rise to U.S.." *Globe and Mail*. 10 September 1986. p. B11. for example.

[29] Ibid.

[30] Wilkinson (1985b). *op. cit.*. 55-58.

[31] Kwaczek. et. al.. *op. cit.*

[32] ECC. *Western Transition*. *op. cit.*. pp. 105-07.

[33] Saskatchewan Bureau of Statistics.

[34] Source: Potash and Phosphates Institute. cited in PPG Industries (1986). "Canada-U.S. Free Trade. Submission to Saskatchewan Trade Secretariat." Figure 6.

[35] Saskatchewan Potash Producers Association (SPPA). "Brief to Saskatchewan Government." 1986.

[36] Ibid.. p. 12.

[37] Canada West Foundation (1986b). *op. cit.*

[38] Canadian Paperworkers Union. 1986 and CWF. 1986b. pp. 29-35.

[39] R. Bryan. "Implications for the Forest Industry." in Peitchinis. *op. cit.*. p. 34.

[40] See J.K. Davies. Manager. L and M Wood Products. Submission to Saskatchewan Trade Secretariat. July 18. 1986.

[41] *Inside U.S. Trade*. U.S.-Canada Free Trade Agreement. Briefing Paper for Secretary Baker and Ambassador Yeutter. pp. 14-15.

[42] Source: Conference Board. *Provincial Outlook*. 1986.

[43] K. Norrie and M. Percy. "Economic Rents. Province-Building and Interregional Adjustment: A Two-Region General Equilibrium Analysis." Economic Council of Canada Discussion Paper No. 230. 1983.

[44] Statistics Canada. Destination of Shipments of Manufacturers. 1979. p. xxxii.

[45] IPSCO. Submission to the Board of Special Trade Commissioners of Saskatchewan. July 25. 1986. p. 6.

[46] Ibid.

[47] Ibid.. p. 21.

[48] Brewers Association of Canada (BAC). "Perspectives on Canada - United States Free Trade." 1985.

[49] Ibid.. p. 4.

[50] W. Lilly. "Canada's Lost Romance with Petrochemicals." *Globe and Mail Report on Business Magazine*. August 1986. p. 50.

[51] Feick. *op. cit.*. p. 3.

[52] Ibid.. p. 5.

[53] R. Kendon. S. Cullen and W. Kerr. "Ensuring Expanded Markets for Western Canadian Petrochemicals Within a Canada-U.S. Free Trade Agreement." *Western Economic Review* 5 (Spring 1986).

[54] Prairie Implement Manufacturers Association (PIMA). "Presentation to the Saskatchewan Trade Negotiations Secretariat on the Subject of Bilateral Free Trade with the United States." August 13. 1986. p. 2.

[55] Statistics Canada. *Manufacturing Industries of Canada: National and Provincial Areas*. 1984. pp. 169. 187.

[56] PIMA, *op. cit.*, p. 3.

[57] Richard Harris and David Cox, "Trade Liberalization and Industrial Organization," *Journal of Political Economy* 93, no. 1 (1985), p. 127.

[58] Statistics Canada, *op. cit.*, pp. 172-73.

[59] Ibid.

[60] N. Cameron, J. Dean and W. Good, "The Manufacturing Sector in Manitoba," Economic Council of Canada Discussion Paper No. 254, 1984, pp. 82-83.

[61] *Maclean's*, 19 October 1987.

[62] Statistics Canada, *op. cit.*, pp. 154-55.

[63] Canada West Foundation, 1986b, p. 52.

[64] United Steelworkers of Canada, "Presentation to the Saskatchewan Committee on Free Trade," 1986, p. 18.

[65] Economic Council of Canada, *Western Transition*, and Statistics Canada, *Labour Force Survey*.

[66] Patricia E. Beeson and Michael F. Bryan, "The Emerging Service Sector," Federal Reserve Bank of Cleveland *Economic Commentary* 15 (June 1986).

[67] Calculated from ECC, *Western Transition*, pp. 150, 155.

[68] Source: Bank of Canada Review, April 1988, Table J2. Note: investment income flows are excluded from this calculation.

[69] Ontario Ministry of Treasury and Economics, *Ontario Study of the Service Sector*, December 1986, p. 74.

[70] Statistics Canada, *Canada's International Trade in Services, 1969-84*.

[71] The Canadian Association of Management Consultants, "Towards Freer International Trade in the Services of Management Consulting Firms," A Submission to the Government of Canada on the Occasion of Negotiations for Freer Trade with the United States, no date.

[72] Robert M. Macintosh, President, Canadian Bankers' Association, "International Trade in Services," Fourth International Retail Banking Conference, London, England, 5 November 1985; Canadian Association of Management Consultants, ibid.; and IBM Canada Limited, "The Information Industry and Canada's Trade," 29 August 1985.

[73] Canadian Independent Computer Services Association, "Will Canadian Data Be Processed in Canada?," no date; and "Indications of Canadian Job Loss Through Transborder Data Processing," August 1984.

[74] R. Macintosh, "International Trade in Services," Fourth International Retail Banking Conference, London, U.K. (1985).

[75] Peter Nicholson, *Canadian Banker* (June 1986).

[76] See the Canadian Bankers' Association response to the Ontario Task Force on Financial Institutions Final Report, May 1986, and Helen Sinclair of the Bank of Nova Scotia, "Should Canada Engage in Free Trade Talks with the United States?," May 1986, for discussion of these two issues.

[77] ACTRA, Brief to the Saskatchewan Trade Negotiations Secretariat, July 28, 1986.

[78] *Inside U.S. Trade*, *op. cit.*

FOUR

Economic Consequences of Freer Trade

Determining the regional consequences of trade liberalization is a difficult task. The removal of tariff and non-tariff barriers can produce several direct effects, including: (1) interindustry specialization; (2) intraindustry specialization; (3) a reduction in the cost of intermediate goods used by producers; (4) lower consumer prices; (5) increased competition; (6) changes in relative prices; and (7) the security associated with assured access to a larger market.

Each of these direct effects varies in importance from industry to industry and from region to region. Each adjustment process also affects macroeconomic variables in the economy such as the wage rate and exchange rates which in turn influence different sectors and regions of the economy in different ways and to different degrees. Since the macroeconomic consequences of the various effects of trade liberalization do not all operate in the same direction, even qualitative descriptions of the subsequent adjustment processes often differ in fundamental ways. For example, increased import competition tends to displace domestic production in previously protected industries, creating unemployment and depressing wages while the removal of foreign trade barriers makes possible the achievement of economies of scale in these same industries, raising productivity and wages. Depending on which effect dominates, labour will be repelled from or attracted to regions like central Canada which prior to trade liberalization had a relatively large concentration of protected industries. In turn, regions like the Prairies which have few protected industries may experience either lower or higher wages as workers migrate into or out of the region in response to wage changes and employment opportunities in those regions which have enjoyed extensive protection.

A fundamental theorem to trade theory is that while the imposition of trade barriers may improve the competitive position and the trade balance for individual industries, it cannot change the overall trade balance. Restrictions to benefit one sector will cause offsetting trade flows in other sectors. The mechanism that produces these offsets is the exchange rate. If import restrictions succeed in reducing imports, they will lead to exchange rate appreciation which in turn produces offsetting declines in exports and increases in imports in other sectors. It follows that the removal of trade barriers will produce the opposite effects. That is, trade liberalization cannot be expected to improve the trade balance in all sectors simultaneously. To the extent that the trade balance in one sector is increased or decreased, exchange rate changes produce offsetting changes in other sectors. While the exchange rate-induced adjustments will largely offset one another nationally, the changes within sectors and regions need not balance. As a result, it is particularly important, in examining the regional consequences of trade liberalization, to identify the sectoral adjustment that occurs.

To further complicate matters, trade liberalization on the international front is bound to require a variety of changes in domestic policies which further alter the sectoral and regional composition of economic activity in Canada.

While initially it is often desirable to abstract from the macroeconomic and policy consequences of trade liberalization when examining the theory of "gains from trade," it must be kept in mind that changes in wage rates, exchange rates or government policies resulting from trade liberalization may be much more important in certain sectors and regions than are the direct adjustment processes. This is particularly true in regions such as the Prairies where protection is limited and production for world markets is dominant.

A primary benefit of freer trade is the opportunity for Canada to specialize in the production of a smaller range of products. This process takes two forms: interindustry specialization and intraindustry specialization.

4.1 Interindustry Specialization

Specialization in fewer industries permits the economy to take advantage of its strengths by concentrating production in those industries where Canada is a particularly cost-efficient producer. It can then acquire the products of industries where Canada lacks comparative advantage more cheaply, through trade.[1] This interindustry specialization has, since the time of Ricardo, been seen as the primary source of benefit from increased trade. In the Canadian case, comparative advantage lies primarily in the production of renewable and non-renewable resources.

The way in which increased specialization comes about following the removal of tariffs and other trade barriers is straightforward. The removal of domestic barriers permits the import of cheaper goods in previously protected industries. These imports displace the higher-priced products of these industries. This tends to reduce the number of firms operating in these industries and to release a portion of the productive resources they employ. At the same time, export industries expand as the removal of foreign barriers provides Canadian exporters with greater access to foreign markets. The direct adjustments in the import-competing and export sectors reflect the relative advantages domestic and foreign firms enjoy because of lower absolute production costs.

Tariff and non-tariff barriers in Canada protect primarily labour-intensive manufacturing industries in Ontario and Quebec. One would expect these industries to be most affected by the increased import competition that will result from the removal of Canadian trade barriers. Canadian exports are composed to a disproportionate degree of goods produced by industries that use intensively non-renewable and renewable natural resources.[2] This reflects the relative abundance of these resources in Canada. Resource industries are thus the leading candidates for expansion resulting from the interindustry specialization produced by the removal of Canadian protective barriers. Foreign barriers to trade in these products are, however, quite low so that the direct incentive to expansion provided by the removal of trade barriers abroad would be limited.

The removal of tariff and non-tariff barriers also produces specialization through changes in domestic factor prices. The displacement of factors from the highly protected and labour-intensive manufacturing industries tends to produce a fall in the wage rate relative to the rate of return to capital and to natural resource inputs, leading to economic expansion in resource-producing industries. This tends to increase employment and incomes in the western and Atlantic regions as central Canada faces the consequences of reduced protection.

A further adjustment comes about through the exchange rate. Since the increase in imports induced by the removal of the high Canadian trade barriers in the manufacturing sector can initially be expected to exceed the volume of increased exports resulting from the removal of relatively small foreign barriers to resource exports, a decline in the Canadian dollar would be required to restore balance-of-payments equilibrium. This in turn encourages the production of goods in which Canada has a comparative advantage, primarily resource-based products.

The conventional view has thus been that specialization resulting from trade liberalization can be expected to produce a shift in economic activity toward the Prairie provinces and other resource-producing regions of Canada, at the expense of central Canada.

Over the past two decades this view has been challenged. A number of economists have argued that it is inappropriate to base judgements about comparative advantage among Canadian industries on costs and trade patterns that exist in the presence of high domestic and foreign protection for manufactured goods.

4.2 Intraindustry Specialization and Economies of Scale

Trade liberalization also permits specialization within industries. Where there are large unexploited cost reductions to be had from longer production runs, nations may profit from specialization and trade even where neither nation has a comparative advantage in specific lines. With such intraindustry specialization, the potential improvement in productivity is directly related to the increase in market size provided by the removal of trade barriers. Smaller countries thus tend to gain proportionally more than do larger ones from this sort of specialization. To the extent that different product lines require different mixes of factor inputs, intraindustry specialization will also reflect comparative advantage.

Protection afforded Canadian manufacturing industries has produced patterns of behaviour that differ from those that would characterize these industries were they faced with international competition. In particular, several manufacturing industries operate at scales well below the optimum both because they have access only to limited markets and because protection has accommodated inefficient and internationally uncompetitive behaviour by Canadian firms.

The removal of Canadian protection would result in substantial adjustment within the manufacturing sector. International competition makes the production of goods at scale levels below world levels less profitable, and lower tariffs abroad encourage longer production runs and lower costs. As a result, a smaller range of products would be produced, but in greater volumes. The rise in productivity resulting from this specialization would permit increased employment in these increasing-returns industries and thus, if the available economies of scale are large enough, would lead to higher wage rates. In this case, labour would tend to be attracted to the manufacturing sector from sectors which use labour intensively and which lack the potential for increased productivity. The sector that would sacrifice the most labour in this adjustment process is the service sector.

In the Prairie region this adjustment process would have little positive effect since the highly protected and import-sensitive manufacturing represents a small share of economic activity there. However, higher wages in the central Canadian manufacturing sector would tend to attract labour from other regions and thus to bid up wages nationwide. If capital flows freely from other regions or nations, higher wages lead to the replacement of labour with capital in the Prairie service and resource industries, raising labour productivity but reducing employment.

Intraindustry specialization of this sort is the source of the oft stated proposition that Ontario would be the main gainer from free trade.

4.3 Producer Cost Savings

A traditional grievance in the west has been the high cost of production inputs. Where the products of protected industries are used extensively by other domestic industries, their higher costs hurt the competitive position of user industries in both domestic and export markets by raising costs above those of foreign competitors.[3] Partly in recognition of the negative consequences of protecting intermediate goods production, tariffs in these industries have been reduced dramatically. In the iron and steel industry, for example, the level of protection from U.S. imports is 2 percent in 1987 versus 14 percent in 1961. As protection in the iron and steel industry has come down, the Canadian steel industry has been forced to rationalize and has achieved world-class scale and costs lower than those of its U.S. counterpart.

Resource industries, which enjoyed little protection but were forced to buy protected inputs, have been the other main beneficiaries of the removal of protection in producer goods industries. Bilateral free trade will provide little further benefit in the form of lower producer costs.

4.4 Consumer Price Changes

Import duties raise the cost of both imported and domestically produced consumer goods. This lowers the real incomes of Canadians in three ways: (1) it raises the cost of imported goods; (2) it raises the cost of goods that compete with imports; and (3) it diverts resources in Canada toward industries in which Canada is relatively inefficient, thus lowering productivity, real wages and returns to other factors.

Free trade provides consumers with a number of benefits. Prices of imported goods are lowered, consumers gain a wider variety of imported goods to choose from, and prices of domestically produced goods are lowered as competition increases.

In estimating the size of the gains to consumers arising from bilateral free trade a number of points should be kept in mind. (1) The reduced cost of goods imported from the United States is offset by a reduction in tariff revenue to the Canadian treasury. Compensating tax increases would largely negate this gain for consumers. (2) For a growing number of consumer durables (clothing, electronic goods, automobiles, etc.) the United States is a large net importer. Prices of these goods in both Canada and the United States are determined largely by price of goods imported from third countries plus the tariffs of quotas that apply to those imports. A bilateral free trade agreement would not produce lower prices for these goods in Canada. (3) Over the past decade, there has been a rapid increase in the extent to which firms selling consumer goods in the United States have become what

Businessweek calls "hollow corporations" assembling, packaging and selling goods or components produced in the lowest-cost locations around the world. The provisions in the Free Trade Agreement requiring a fixed proportion of North American content in goods to be exempt from Canadian tariffs effectively excludes many of these goods assembled in the United States from entering Canada duty-free. The same provision limits the ability of Canadian producers to use least-cost components for sales into the American market and thus tends to leave Canadian costs higher than those elsewhere in the world. (4) The cost of tariffs to individual consumers and producers in western Canada is far less than it once was. Pinchin estimates that the extent of the transfers to Ontario and Quebec from other parts of the country due to protection declined as a percentage of personal income from 3.9 percent in 1949 to 2.0 percent in 1969 as tariffs declined.[4] This figure incorporates the cash cost of the tariff plus the additional cost borne by consumers as a result of the ability of colluding producers to price to the world price plus the tariff. Since 1969, further large reductions in tariff protection afforded Canadian goods have further reduced the consumer cost of protection to western Canadians. (5) Western Canadian imports of manufactured goods from central Canada have declined as a proportion of total consumption spending in the region from over 70 percent of regional imports in the early 1950s to under 40 percent in the early 1980s.

Reduced concern on the part of many Prairie consumers may then reflect an accurate assessment of the diminishing size of the potential gain bilateral free trade offers them. While the potential consumer and producer gains from bilateral trade liberalization have been shrinking, the potential gains from freer trade on a worldwide scale may be growing. Non-tariff barriers in Canada tend to be directed against the threat of offshore competition. Quotas on shoes, clothing and autos from Asia and measures to restrict or prevent the import of butter and wine from Europe or beef from Australia are increasingly costly. Bilateral free trade does not address these barriers.

Appendix A provides a calculation of net consumer benefit from bilateral free trade under the terms of the Canada-United States Free Trade Agreement. It concludes that the per capita benefit is less than $70 (in 1984 dollars).

4.5 Increased Competition

Trade liberalization increases competition faced by Canadian producers. This competition removes the cushion that allows collusive and inefficient behaviour in Canadian industry.

It has been suggested that tariff and non-tariff protection allows firms to collude in raising their prices to match world prices plus the tariff or the tariff equivalent in non-tariff protection. This proposition, originally advanced by Eastman and Skybolt in 1967, has received considerable empirical support in recent years.[5] Protection has allowed firms to generate excess profits or to maintain high-cost operations at the expense of Canadian consumers. The removal of protection will increase competition that domestic producers face. Some expect this "cold shower" to force a rapid improvement in productivity, as less productive firms fail to compete against foreign competition at world prices and go out of business, being replaced by world-class operations.

Some care, however, is required in assessing the likelihood of this outcome for the Canadian manufacturing sector. The case of Great Britain makes it clear that these competitive effects do not automatically ensure industrial restructuring and widespread productivity gains. The British case illustrates clearly that freer trade and deindustrialization can proceed hand in hand.

The appreciation of the British pound as a result of the development of North Sea oil undoubtedly contributed to the difficulties Britain experienced in adjusting to freer trade. This suggests two additional concerns for Canada: (1) the effects in industrial structure if a substantial wage gain or currency appreciation comes to pass as a result of bilateral trade liberalization; and (2) the negative effect periodic resource booms might have on the international competitiveness of Canadian manufacturing industries.

In any event, the pro-competitive effects of bilateral free trade with the United States are bound to be much weaker than would those arising from multilateral free trade. This is so for two reasons. Many of the firms with which companies operating in Canada would be expected to compete are their parent firms. The possibilities for collusion remain substantial. Moreover, the fact that United States manufacturing is increasingly reliant on protection to compete against low-cost products from abroad ensures that Canadian producers would still be insulated from world-class competition in many product-lines.

Exemption of several industries, including brewing and dairy, from the full competitive pressure of U.S. producers and the continuing protection of other industries from third-world competition will further limit potential Canadian gains from increased competition.

4.6 Changes in Relative Prices

The effect of trade liberalization on prices paid and received by producers in small countries has been a subject of debate for some time.

In general, one would expect that small open economies would be "price-takers," pricing their exports low enough to gain access to protected foreign markets (i.e., the world price less the foreign tariff) and paying prices for imported goods high enough to yield the world price to the foreign supplier (i.e., the world price plus the Canadian tariff). The small country, Canada in this case, thus pays both the Canadian and foreign tariff. The removal of Canadian and American tariffs would thus tend to raise the price received by exporters in Canada to the U.S. level and to reduce the price paid by Canadian importers to the U.S. level. The former effect results in higher prices in Canada for Canada's main exports while the latter produces lower prices for imports and import-competing goods.

Exports represent a much larger proportion of production for small-country firms. Cost reductions arising from trade liberalization are thus more likely to affect prices charged by producers from small countries than those charged by large-country producers, particularly in industries where small-country production represents a substantial portion of large-country imports.

The net effect of the resulting terms-of-trade effect may have a significant effect on the potential benefits associated with free trade. Boadway and Treddenick have demonstrated that deterioration of the terms of trade could well result in a net loss to Canada from bilateral free trade.[6]

The Kennedy and Tokyo rounds of tariff cuts have reduced the differential between world and domestic prices and have thus reduced the terms-of-trade effect that can be expected with this Agreement.

4.7 Assured Access

While most of the sources of potential gain from free trade have grown smaller over the past two decades, the rising mood of protectionism in the United States has increased the uncertainty faced by Canadian exporters. This is particularly true in the resource-based industries that dominate Prairie trade.

It is difficult to estimate the extent to which the threat of trade actions by U.S. producer groups have discouraged export-oriented investment in the Prairie region.

In those industries where steady long-term markets are crucial (beef or steel, for example), assured access could provide strong incentive for export-oriented investment.

The proposed Agreement does not provide guaranteed access to the American market but it may reduce the risk of arbitrary harassing actions by U.S. interests.

Producers choosing locations from which to serve the North American market must weigh the continuing "border risk" against other advantages offered by Canadian locations.

NOTES

[1] A proof of this proposition and a discussion of the assumptions that underlie it are available from most standard trade texts. See M. Chacholiades (1978). *International Trade Theory and Policy*. pp. 13-42. for example.

[2] E. Leamer. *Sources of Comparative Advantage: Theory and Evidence* (Cambridge: M.I.T. Press, 1984). pp. 106 and 285.

[3] J.R. Williams. *The Canadian-U.S. Tariff and Canadian Trade* (1978). This source of gain was the focus of the analysis carried out by J.R. Williams in 1976 using 1961 data. In recognition of this concern, direct producer inputs have increasingly escaped tariffs in recent years. Williams concluded that the protection of the Canadian iron and steel industry, for example, had the effect of raising producer costs substantially and thus hurting the competitive position of Canadian producers. This effect accounted for most of the gain he attributed to trade liberalization. Further potential gains arising from lower producer costs following the proposed trade pact are much smaller than they would have been in 1961.

[4] H. Pinchin. *The Regional Impact of the Canadian Tariff*. (Ottawa: Economic Council of Canada. 1979).

[5] H.C. Eastman & S. Stykolt. *The Tariff and Competition in Canada*. (Toronto: Macmillan. 1967).

[6] Robin Boadway & John Treddenick. "A General Equilibrium Computation of the Effects of the Canadian Tariff Structure." *Canadian Journal of Economics* 11(3). 1978.

FIVE

Free Trade Enquiries

The effects of protection in Canada have been the subject of study and debate among Canadian economists for a century. In recent years, major reports by the Economic Council of Canada and the Royal Commission on the Economic Union and Development Prospects for Canada (the Macdonald Commission) have attempted to summarize and quantify the effects of bilateral free trade with the United States. Both of these inquiries served as foci for extensive research efforts on the issue of trade. Both reports came out strongly in favour of the negotiation of a bilateral free trade agreement with the United States. Yet, neither inquiry was able to provide clear, well-documented support for its policy prescription. Moreover, neither report provided a clear analysis of the regional or sectoral consequences of trade liberalization.

5.1 Economic Council of Canada, *"Looking Outward"* (1975)

In 1975, the Economic Council of Canada issued *Looking Outward*. A major report on Canada's trade prospects and policies, it was based on a series of detailed background studies of Canada's status in world markets. A number of these background studies were not released until two to three years after the publication of the Council's report. When they were made public, they raised serious questions about the conclusions reached in *Looking Outward*. This is particularly true of two studies with major regional implications: Dauphin's *The Impact of Free Trade in Canada* and Pinchin's *The Regional Impact of the Canadian Tariff*.[1]

The Economic Council report observed that Canada's competitive position has been seriously eroded since World War II as a result of two developments: the formation of the European Economic Community with its offshoot, the European Free Trade Association; and the increasing productivity and competitiveness of low-wage producers in the Third World. The development of the EEC allowed many of Canada's traditional competitors in world markets to achieve larger economies of scale by supplying the entire European market. Prior to World War II, Canada ranked in the mid-range of industrial countries in terms of the size of market to which it had unhindered access. By the early 1970s Canada was among a small and diminishing number of industrialized countries that lacked free access to markets of 100 million or more. The growth of productivity in the less-developed countries lowered costs there and raised the cost of protecting labour-intensive industries in Canada.

The Council concluded that multilateral free trade was the optimum response to these developments, but saw little likelihood of persuading Europe and Japan to reduce their tariff protection in the near future. It therefore concluded that the most practical solution was to negotiate a bilateral free trade agreement with the United States.

Access to the American market allows resources to be diverted to those efficient producers who could become competitive if they could sell large volumes of particular products. This would raise productivity in Canada in these industries. The Economic Council repeated the assertion made earlier (1967) by Wonnacott and Wonnacott that free trade would allow manufacturing productivity in Canada to rise by about 27 percent to equal American levels.[2] This assertion rested on the assumption that the only source of international productivity differentials was market size.

There are many reasons to doubt Canadian productivity would actually rise to American levels. Subsequent studies have concluded that there are several other factors that affect productivity differences between Canada and the United States, including differences in research and development intensity, seller concentration, non-production worker intensity, foreign ownership, relative management quality, and the training and education of the respective work forces.[3]

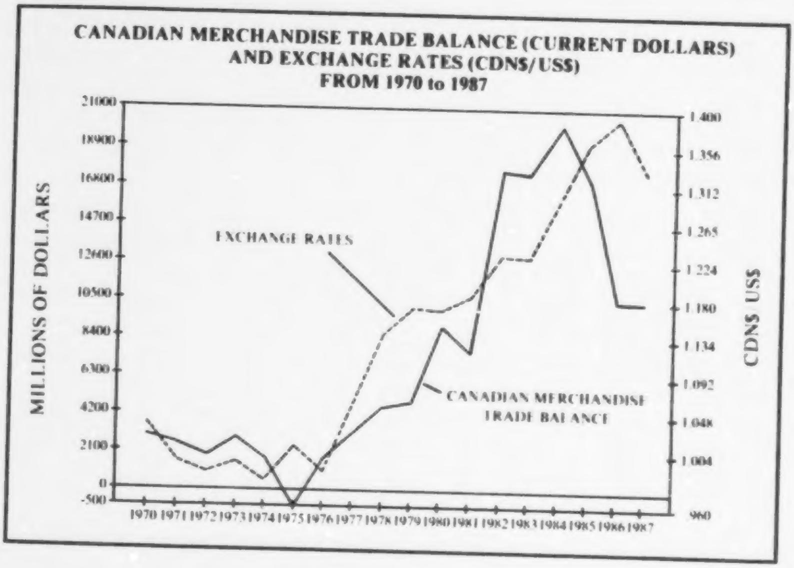
The Canadian labour force, growing at a pace almost twice as rapid as that of most other industrial countries in the postwar period, has provided a steady supply of labour to the economy that has eased the pressure for labour-saving (and productivity-raising) innovations, particularly in the service sector. This fact accounts for much of Canada's relatively poor productivity performance.

The fact that industries (e.g., farm machinery in Canada) and countries (e.g., Britain) which gain free access to larger markets often have not experienced rapid productivity growth suggests that unhindered market access is not a sufficient condition for productivity improvement. The fact that countries smaller than Canada, such as Sweden, Finland and Australia achieved rapid productivity growth in the 1960s and 1970s with only limited access to large markets also suggests that unhindered market access may not be a necessary condition for productivity growth.[4]

Productivity differences among the provinces within Canada are greater than those between Canada and the United States.[5] This suggests, once again, that access to markets is not the sole determinant of productivity differentials.

An interesting aspect of *Looking Outward* is the central macroeconomic adjustment expected by the Council: devaluation of the dollar. The Council predicted that this adjustment would provide a number of Canadian manufacturing industries with a comparative advantage in the American market. This indeed has happened over the past ten years with freer, but not free trade with the United States. (The relationship is illustrated in Figure 1)

FIGURE 1



CANADIAN MERCHANDISE TRADE BALANCE (CURRENT DOLLARS) AND EXCHANGE RATES (CDN$/US$) FROM 1970 to 1987

With respect to employment, the Council's 1975 conclusion is also interesting, particularly in light of the Council's 1986 Annual Report citing its projections of large-scale job gains from free trade. In 1975, the Council predicted "the emergence of a general labour shortage in the last quarter of this century" and suggested that "in the next decade or so reductions in import protection would be less likely to produce prolonged unemployment difficulties than at any time in our recent history."[6] In 1975 the Council thought that the *reduction in employment* resulting from bilateral free trade would on the whole be a positive thing since it would ease the projected labour shortage. On an industry-by-industry basis, the Council concludes, "A few industries—fish processing and alcoholic beverages, for example—would have a tendency to expand output and employment as soon as Canada and its trading partners removed their trade barriers. But the most common result would be a tendency to contract . . . ."[7]

5.2 Macdonald Commission

The Report of the Royal Commission on the Economic Union and Development Prospects (the Macdonald Commission) repeated the Economic Council's call for the negotiation of a bilateral free trade pact with the United States.[8] This report reviewed a variety of evidence, some commissioned and some produced independently. In summarizing this evidence, it placed more emphasis on economies of scale and access to the U.S. market and less on potential consumer benefits than had the earlier Economic Council study.

The Report, which repeats most of the claims made by the Economic Council of Canada in *Looking Outward*, endeavours to determine the percentage gain in national income which would result from free trade. It cites not one but several estimates, ranging from slightly under 4 percent to about 10 percent of Gross National Product (GNP).

The largest gain cited is the Wonnacotts' estimate of slightly over 10 percent of GNP. This estimate is based on 1958 data and on the dubious assumption, later adopted by the Economic Council, that all productivity differences between Canada and the United States are a result of unexploited economies of scale. The other very large income increase cited is that predicted by Harris and Cox.[9] They estimate a gain of about 9 percent in real income from bilateral free trade. While the methodology of the Harris and Cox study represented a breakthrough in economic modelling, both the data and methodology used in this latter study have been the subject of serious criticisms, placing in question the confidence one may place in their estimate.[10]

The Commission also cites several studies that predict gains of 3-7 percent of GNP.[11] However, the Report ignores other available estimates which indicate smaller gains or even losses from bilateral free trade, including those estimated in studies cited by the Commission's Research Co-ordinator in background material to the Commission Report.[12]

No rationale is provided for these omissions. Rather, the Commission concludes:

> The long-term gains suggested by these studies lie in the range of 4 to 10 percent of Canadian GNP. Considering that tariffs will be lower by the end of the Tokyo Round tariff cuts than the levels used in these studies, this range might perhaps be lowered to 3 to 8 percent of GNP.
>
> These are still substantial gains . . . . They. . .provide strong support for our proposal of freer trade with the United States.[13]

This conclusion requires a leap of faith. Selectively combining widely varying, and in some instances questionable, estimates based on data over thirty years, and then adjusting such estimates by 1 and 2 percent at their lower and upper limits, respectively, to reflect recent developments implies far

The Macdonald Commission reached the conclusion that "such disagreements as exist are quantitative, not qualitative."[14] In fact, it is fairer to conclude that disagreement is in many cases *qualitative, not quantitative.* While a modest net gain is often (but not always) found, the makeup of that gain and the resulting regional implications differ in fundamental ways. Several studies predict currency devaluation and growing resource exports offsetting losses in manufacturing.[15] In contrast, other studies predict gains derived primarily from rationalization of manufacturing and currency appreciation.[16] These qualitatively different views of the consequences of bilateral free trade underlie estimated effects that are often quantitatively similar.

NOTES

[1] R. Dauphin, *The Impact of Free Trade in Canada* (Ottawa: Economic Council of Canada, 1978); Pinchin, *op. cit.*

[2] Economic Council of Canada, *Looking Outward: A New Strategy for Canada* (Ottawa: Queen's Printer, 1975), p. 81. See also R.J. Wonnacott and P. Wonnacott, *Free Trade Between the United States and Canada: The Potential Economic Benefits* (Cambridge: Harvard University Press, 1967).

[3] For a summary of work on this issue, see R.S. Saunders, "The Determinants of Productivity in Canadian Manufacturing Industries," *Journal of Industrial Economics* 5 (1980), pp. 167-84.

[4] See Standing Senate Committee on Foreign Affairs, *Canada-U.S. Relations*, Vol. 2 (Ottawa: The Queen's Printer, 1978), p. 42.

[5] See L. Auer, *Regional Disparities in Productivity and Growth* (Ottawa: Economic Council of Canada, 1979).

[6] Economic Council of Canada (1975), *op. cit.*, p. 64.

[7] Ibid., pp. 169-70.

[8] *Report of the Royal Commission on the Economic Union and Development Prospects in Canada* (Ottawa: Queen's Printer, 1985).

[9] R. Harris with D. Cox, *Trade, Industrial Policy and Canadian Manufacturing* (Toronto: Ontario Economic Council Research Study, 1984). It should be noted that Harris has been hired by the Federal Government to rework his model and incorporate more realistic scale measures, trade elastics, market share estimates and estimates of trade barriers. These modifications produced more useful quantitative results that were much less supportive of free trade. Unfortunately, only a brief description of the study results has been released by the Department of Finance. The quantitative gains, however, of this work are much smaller than estimated in the 1984 Harris and Cox piece. Fuller discussion of this model is provided below.

[10] J. Whalley, " 'Trade, Industrial Policy and Canadian Manufacturing' by Richard G. Harris (with the assistance of David Cox): A Review Article," *Canadian Journal of Economics* 17, no. 2 (May 1984), pp. 386-98.

[11] See J.H. Young, *Canadian Commercial Policy* (Ottawa: Royal Commission on Canada's Economic Prospects, 1957); R.A. Shearer, J.H. Young and G.R. Munro, *Trade Liberalization and a Regional Economy: Studies of the Impact of Free Trade on British Columbia* (Toronto: University of Toronto Press, 1971); J.R. Williams, *Resources, Tariffs and Trade: Ontario's Stake* (Toronto: University of Toronto Press, 1976).

[12] See Whalley, 1985a, *op. cit.*, pp. 29-31.

[13] Report of the Macdonald Commission, *op. cit.*, p. 330.

[14] Macdonald Commission, *op. cit.*, p. 330. In part this reflects a misreading of some of the evidence. For example, the Commission staff misrepresents the conclusions of Dauphin's study of the regional consequences of free trade.

[15] B. Wilkinson, *Canada's International Trade: An Analysis of Recent Trends and Patterns* (Montreal: Private Planning Association of Canada, 1968); H. Postner, *Factor Content of Canadian International Trade: Input-Output Analysis* (Ottawa: Economic Council of Canada, 1975); H. Baumann, "Structural Characteristics of Canada's Pattern of Trade," *Canadian Journal of Economics* 9, no. 3 (1976); Pinchin (1979); H. Pinchin, "A Framework for Assessing the Impact of Free Trade in North America," in W.D. Shipman, ed., *Trade and Investment Across the Northeast Boundary: Quebec, the Atlantic Provinces and New England* (Montreal: Institute for Research on Public Policy, 1986); and Dauphin, *op. cit.*, all predict this qualitative adjustment.

[16] R. Harris with D. Cox, *Trade, Industrial Policy and Canadian Manufacturing* (1984), *op. cit.*, R. Tremblay, "The Regional Impact of Free Trade in Canada," *Canadian Journal of Regional Science* 8, no. 1 (1985); Wonnacott and Wonnacott (1967), *op. cit.*, and R. Wonnacott and P. Wonnacott, "Toward Free Trade Between Canada and the United States," *Canadian Business Review* (Autumn 1985), for example, claim this sort of adaption.

SIX

The Research

Within trade literature, there have been two distinct approaches to the question of what determines a country's trade patterns under free trade: the general equilibrium approach and industrial organization approach.

With the general equilibrium approach, the trade patterns of a country are explained primarily by its endowment of factors of production. In the absence of full factor mobility between countries, trade serves as the mechanism whereby countries exchange the services of the factors they have in abundance for those they lack. A country's trade pattern can therefore be inferred from its factor endowment and its consumption pattern. With trade liberalization, the prices of abundant factors tends to fall relative to those of scarce factors, thus making the production and export of goods that make greater use of the abundant factor profitable and encouraging the import of goods that use a higher proportion of factors that are scarce in the domestic market. In order to fully take account of the effects of factor endowment on relative prices and hence on trade patterns, this factor endowment analysis has normally been incorporated in a perfectly competitive general equilibrium model. As a result, it has failed to fully capture several important characteristics of modern industrial economies such as imperfect competition, product differentiation, intraindustry trade and the prevalence of the multinational corporation.

In the industrial organization approach, on the other hand, trade patterns are determined by characteristics of the industries present in a country such as the degree of competition and available economies of scale. This latter analytical approach has generally been incapable of fully incorporating the effects of the changes in factor prices required to produce a fully consistent model and this approach is generally situated in partial equilibrium analysis.

The two approaches to the estimation of the effects of trade liberalization have produced very different views of the consequences of free trade for Canada's industrial and regional structure.

The industrial organization approach focusses on potential productivity gains in previously protected sectors, predominantly manufacturing industries, that result from economies of scale and from increased competition. In this approach, labour and capital are projected to flow toward the manufacturing sector which is concentrated in central Canada.

The general equilibrium (or factor endowment) approach suggests that protection diverts productive resources away from those industries that use intensively factors of production that Canada has in abundance (mainly renewable and non-renewable natural resources) and toward protected manufacturing industries that use intensively factors that Canada is relatively poorly endowed with, such as management skills and technology. Free trade, in this framework, would remove this distortion and allow comparative advantage to concentrate activity where Canada enjoys natural advantages. This approach focusses on the interindustry specialization that occurs with increased trade opportunities and the resulting change in relative prices. It predicts that trade liberalization leads to further concentration on resource exports and produces large benefits in resource-producing regions.

The next section looks in detail at selected studies of the impact of free trade in the general equilibrium and industrial organization approaches. It then examines two studies that attempt to integrate the two approaches — Richard Harris's, and the recently released Economic Council study.

6.1 General Equilibrium Studies

POSTNER, HARRY H., *Factor Content of Canadian International Trade: Input-Output Analysis* (Ottawa: Economic Council of Canada, 1975)

As part of the background research for the Economic Council's *Looking Outward* report, Harry H. Postner undertook a detailed examination of Canadian trade patterns.

Postner's approach consisted of analysing the direct and indirect factor content of Canadian exports and of commodities comparable to Canadian imports ("import-replacements"). Postner went well beyond the simple two-factor analysis used in earlier studies, looking at seven factors, listed in the order of their contribution to Canadian net exports: (1) non-renewable natural resources, (2) renewable natural resources, (3) gross structures capital, (4) gross machinery capital, (5) elementary-educated labour, (6) high school-educated labour, (7) university-educated labour.

For total Canadian trade in goods and services in 1970, Postner determined that the pattern of "Canadian international trade can be characterized as one of net exporting the factor services of elementary labour, gross fixed capital and natural resources in exchange for the net import of [other] labour, particularly highly educated labour."[1]

In a subsidiary analysis, Postner treated the input of labour from each region of Canada as separate factors in order to estimate regional employment effects of tariff removal. He concluded that in the event of trade liberalization Quebec would suffer a substantial net loss of jobs, Ontario would lose a small number of jobs, the Atlantic and Prairie regions would experience small net gains in employment and British Columbia would experience a substantial employment increase.

Comparative advantage theory suggests that the factor content of Canadian net exports ought to correspond to patterns of relative factor endowment. Postner finds, in fact, that "the [current] ranking of the relative factor content calculations, from high to low, corresponds exactly with the ranking of Canadian factor endowments as compared to foreign factor endowments."[2] It also follows that exports of a commodity are more likely to exceed imports of that commodity when its production uses intensively productive factors with which the country concerned is comparatively well endowed. This result is known as the commodity version of the Heckscher-Ohlin theorem. It is particularly useful in predicting the consequences of trade liberalization.

Tariff and non-tariff measures can either reinforce or weaken the comparative advantage a country enjoys due to its relative factor endowment. Postner's results suggest that the prime source of Canada's comparative advantage in international trade is its factor abundance of natural resources, particularly non-renewable resources, while Canada's greatest comparative disadvantage is in labour intensive commodities, particularly those with a high university-educated labour content.[3] Postner finds that tariff and non-tariff barriers in Canada provide above-average protection to labour-intensive industries (particularly those that use elementary and high-school labour intensively) and to renewable-resource-intensive industries. Protection thus has tended to negate Canada's comparative advantage. Conversely, trade liberalization, involving the removal of such barriers, should increase the role of comparative advantage in determining Canada's trade patterns.

The period 1967-71 was one of rapid trade liberalization as the measures agreed to in the Tokyo Round of the GATT talks were implemented. Postner therefore examined the changes in Canadian trade in secondary manufactured goods over that period to determine if the theoretical proposition that trade liberalization reinforces endowment-based trade patterns was borne out in practice. He concludes that over that period, "the growing Canadian secondary manufactured exports are distinguished almost solely by their relative factor-intensity in nonrenewable resources." This is consistent with the predictions of the factor endowment theory.

Applying comparative advantage analysis to the effects of multilateral free trade, Postner finds that: "The structure of existing Canadian international trade appears to be the principal determinant of the additional trade (following multilateral free trade liberalization) insofar as the Canadian factor impacts are concerned."[4]

Postner concluded: "The additional Canadian trade stimulated by multilateral free trade can be characterized as one of net exporting the factor services of natural resources and fixed capital in exchange for the net import of all types of labour services. Nonrenewable natural resources are by far the relatively most important net export."[5]

Postner's study is much more comprehensive than earlier studies in a similar vein and deals fully with the issue of human capital. Nevertheless, his methodology does raise some concerns.[6]

First, Postner draws his inferences about the pattern of trade that would exist in Canada under free trade from industry data that is distorted by the presence of trade barriers. The prevalence of foreign ownership and small scale production, for example, are, in part, the result of current protection. In turn, these characteristics distort the factor endowment data for Canada and bias the analysis when a rigid factor endowment approach is applied to predict trade patterns under a free trade regime.

In comparison to other industrialized countries, the Canadian economy is characterized by an exceptionally high degree of foreign ownership and by firms that operate on a relatively small scale. Within multinationals, a division of functions between the home nation of the parent firms and the host nation tends to develop with management, research and design concentrated in the head office country. This produces a truncation of the subsidiary with only a fraction of normal corporate functions being performed in Canada.

Looking at the domestic use of highly educated personnel as a measure of the technological intensity of an industry will tend to assign those industries characterized by a high degree of foreign ownership to a lower technological status than they have in other nations where there is a lower degree of foreign ownership. In order to fully account for the technological intensity of Canadian exports and imports, allowance should also be made for imported technology that is developed abroad but applied in Canada.

A second problem with Postner's analysis is his assumption of constant returns to scale. Canadian manufacturing firms tend to operate at less than optimum scale. The removal of tariffs and other protection would allow these firms to specialize to serve larger markets and thus to achieve greater scale economies.

A third problem is Postner's choice of the 1967-71 period to examine the effects of trade liberalization. This was a period during which the Vietnam War and other developments produced a resource boom that strengthened the Canadian dollar and eroded the competitive position of Canadian manufacturers so that the relative weakness of the non-resource-based manufacturing sector may be overstated.[7]

While these biases tend to result in an overstatement of Canada's comparative disadvantage in non-resource-based manufacturing, data on absolute resource endowment and data adjusted to remove some of the distortions arising from protection suggest that Canada's strong comparative advantage in resource-based production would persist in a free trade environment.[8] Thus, Postner's conclusion that the removal of tariff and non-tariff barriers will tend to lead to further concentration in resource production relative to manufacturing is weakened but not invalidated by the criticisms raised.

BAUMANN, HARRY. "Structural Characteristics of Canada's Pattern of Trade." *Canadian Journal of Economics* 9, no. 3 (1976)

Harry Baumann compared the factor proportions explanations of Canada-United States trade patterns with a "technological" explanation for bilateral trade patterns between Canada and the United States. While Baumann acknowledges that, in theory, the Heckscher-Ohlin theorem need not hold for bilateral trade, he argues that, given the overwhelming weight of Canada-United States trade in Canada's total trade, if the theorem did not hold in this context, it would be unlikely to hold for Canadian trade as a whole.

In his factor proportions model, Baumann regresses imports as a proportion of domestic shipments by each corresponding Canadian industry against those industries' crude material use, human-capital use (as measured by the industry's proportion of professional and technical workers), capital/labour ratios and potential economies of scale at both the plant and firm level. Baumann finds that Canadian imports are positively and strongly related to an industry's human capital content, strongly and negatively related to its capital/labour ratio and positively correlated (with a marginal degree of significance) to both plant- and firm-specific economies of scale.

Exports as a proportion of domestic output in each industry are regressed against crude material content, human capital content, economies of scale and the proportion of consumer goods in the industry's output. The coefficient for the proportion of consumer goods produced is negative and highly significant while the coefficients for crude material content and economies of scale are positive and significant. When the crude material content variable is restricted to industries in which Canadian raw materials are plentiful, e.g., fishing, forestry and mining, the explanatory value of this export equation is much improved.

These findings indicate, as did Postner's, that Canada enjoys a clear comparative advantage in the production of resource-based goods and comparative disadvantage in the production of goods that use large amounts of human capital and labour. Canada also has an apparent comparative disadvantage in the production of consumer goods. As one would expect, potential economies of scale favour both exports and imports.

In examining Canadian net exports, Baumann also found that Canada's net trade balance was positively correlated with raw material intensity and capital intensity rather than with human capital intensity. Moreover, he concluded, Canada has a definite disadvantage in industries where economies of scale are important, in part because economies of scale tend to be concentrated in consumer industries and industries with a high technological content: two sorts of industries where Canada is relatively uncompetitive and will remain so, even with free trade.

This last observation is crucial because it indicates the nature of economies of scale in modern manufacturing. Whereas economies of scale have long been associated primarily with the savings derived from producing goods in very large quantities, the potential for the minute division of operations and reductions in the need for retooling, economies of scale at the firm level now increasingly reflect the firm's need to spread research, development, design and advertising costs over a larger volume of sales. The introduction of computers and robots into mass production have greatly reduced the need for long runs of identical products.

Baumann also applied a "neo-technology approach" where he introduced into his examination of trade determinants variables intended to reflect a product-cycle theory of trade rather than the factor proportions theory. The variables used were the first trade date for the product, reflecting the product's newness and a measure of the degree of product differentiation. Both variables had significant and positive effects on Canadian imports and significant and negative effects on Canadian net exports. Their effect on exports was not significant. Baumann sees this as support for Hufbauer's (1970) view that "the United States has an abundance not only of R&D inputs but also of external services (marketing agencies, risk capital, testing laboratories) which confer on that country a comparative advantage in industries where product differentiation abounds."[9] This suggests that Canada has a comparative disadvantage in bilateral trade in industries of this sort, particularly manufacturing of consumer goods. This evidence reinforces the conclusion that the spreading of the cost of intangible assets such as R&D is an important aspect of economies of scale. Free trade is unlikely to lead to the achievement of these kinds of economies of scale in the foreseeable future since the location of such assets in the United States is due to complex social and intrafirm organizational factors.

One of the concerns about Postner's work applies equally to Baumann: the use of protection-distorted industrial data as measures of factor use and factor endowment.

6.2 Industrial Organization Studies

Industrial organization economists have taken a particular interest in the phenomena of increasing returns to scale and imperfect competition in Canada. In a small protected economy, there may be room for few firms of optimum scale. This tends to foster monopolistic behaviour. Firms can set prices above the cost-minimizing price of the optimal scale firm. This in turn permits both monopoly profits and the continuing existence of inefficient producers.

The introduction of competition into such an environment through the removal of protection has a number of positive effects. It lowers prices by competing away monopoly profits, it drives inefficient firms out of business, and it opens up wider markets for efficient firms.

Since imperfect competition was seen as inconsistent with traditional general equilibrium analysis, early industrial organization studies on the consequences of trade liberalization were unable to take full account of the ensuing changes in relative factor prices. They also found it impossible to quantify the extent of intersectoral adjustments.

Only with the path-breaking work of Richard Harris were these adjustments reconciled with imperfect competition in an empirical analysis of the consequences of free trade.

Two early studies, the Wonnacotts' study which focussed on economies of scale and Eastman-Stykolt who focussed on the anti-competitive effects of protection, are discussed very briefly here since the essence of their models are incorporated into the Harris model, which is reviewed extensively.

WONNACOTT, RONALD J. and PAUL WONNACOTT, *Free Trade Between the United States and Canada. The Potential Economic Benefits* (Cambridge, Mass.: Harvard University Press, 1967) and R. WONNACOTT, "Free Trade Between Canada and the United States: Fifteen Years Later," *Canadian Public Policy*, VIII Supplement, 1982

The Wonnacotts identified as the primary source of productivity differences between Canada and the United States the shorter production runs available to firms producing in Canada. Using 1958 data, they estimated that this difference was about 30 percent in manufacturing industries. They assumed that the removal of tariffs would allow manufacturing firms in Canada to become as productive as those in the United States. This in turn would divert resources in Canada toward these increasingly productive industries. The improvement in manufacturing productivity would raise Canadian welfare by approximately 6 percent of GNP. In addition lower prices both for imported goods and for goods that had previously been protected would, they calculated, provide an additional welfare gain of 4 percent of GNP.

EASTMAN, H.C. and S. STYKOLT, *The Tariff and Competition in Canada* (Toronto: Macmillan, 1967)

Eastman and Stykolt argued that in a small protected economy like Canada's there is a great tendency toward collusion. Firms tend to set their prices equal to world prices plus tariff and transport costs in order to take full advantage of the protection afforded. The result is twofold: (1) above normal profits for protected firms; and (2) the continued existence of inefficient firms. Protection allows firms to remain profitable without matching the efficiency of potential competitors outside Canada. This suggests that there are great potential gains to be had by Canadian consumers through the exposure of Canadian firms to the cold wind of international competition. Note, however, that to the extent that bilateral free trade provides unimpeded access only to American competitors, many of whom are parent firms of these existing inefficient and colluding firms, this benefit may be much less than could occur with full multilateral free trade.

CAVES, RICHARD E., MICHAEL E. PORTER, A. MICHAEL SPENCE and JOHN T. SCOTT, *Competition in the Open Economy, A Model Applied to Canada* (Cambridge, Mass.: Harvard University Press, 1980)

In 1980, Richard Caves, Michael Porter, Michael Spence and John Scott published a major study which applied industrial organization concepts to the behaviour of the Canadian economy. In examining Canadian trade performance, they also tested a mixture of factor endowment and industrial organization explanatory variables.

Using an 84-industry sample of Canadian manufacturers, they examined the influence of nine variables on the proportion of domestic disappearance accounted for by imports. These variables were advertising intensity; concentration; potential economies of scale as measured by scale in the corresponding American industry; raw material input content; the capital/labour ratio; the proportion of professional and scientific employees; the effective rate of protection; the research intensity of the comparable industry in the United States; and whether the industry is "regional" (i.e., if it has very high transport costs or other constraints that require localized production). Using an ordinary least square technique for the forty industries for which complete data sets were available, economies of scale, research intensity and raw material content were found to be positively and significantly correlated with Canadian imports. The dummy variable designating regional industries was a negative and significant determinant of imports. With a full 84-industry set constructed through the replacement of missing observations with predicted values in a regression of the relevant variable on a subset of the complete variables, economies of scale and U.S. research intensity remained positive and significant determinants of imports while advertising intensity and concentration joined the regional dummy as significant negative determinants of imports.

With respect to the share of Canadian production exported, nine variables were proposed for testing: value added per establishment; foreign control; concentration; raw material input; the capital/labour ratio; the proportion of professional and technical employees; economies of scale in the U.S.; a regional dummy; and whether the goods produced by the industry were consumer or investment goods. Unfortunately, there was strong collinearity between the first three of these variables, so that a joint variable, sales by foreign controlled firms times value added per establishment, was substituted.

With the full 84-industry sample, the foreign control/value added variable and the raw material input were very significant and positive, with t-values of 4.19 and 3.24 respectively, while the capital/labour ratio was positive and significant at the 10 percent level. "Consumer industry" and the proportion of professional and technical staff were negative and significant, with t-statistics of 3.49 and 1.74, respectively.

When export and import propensities were combined to measure the influence of these variables on net exports, raw material content, and capital/labour ratio were positive and significant at the 1 percent level in both the partial and the full samples. The proportion of professional and technical staff and the consumer good variables were negative and significant at the 1 percent level in both samples. The degree of effective protection was a negative determinant of net exports at the 1 percent level in the partial sample as was the research and development intensity in the full sample.

These results support Postner's conclusion that Canada has a comparative advantage in industries with high raw material and capital content and that Canada has a comparative disadvantage in industries that make extensive use of human capital, as measured by the proportion of employees in the professional and technical categories.

The importance of the U.S. research and development intensity measure in both imports and exports suggests that this variable is a contributing factor to intraindustry trade. This conclusion is consistent with the evidence cited elsewhere that a large part of intraindustry trade is intrafirm trade carried out by multinational corporations and that multinational corporations are attracted primarily to industries where they can further exploit their home-market, research-intensive, intangible assets.[10]

The importance of economies of scale in both exports and imports suggests that this is also an important determinant of intraindustry trade. This is what one would expect since economies of scale provide cost savings that tend to override transport costs, tariffs and other incentives for geographically dispersed production.

The fact that the level of research and development conducted by an industry in the United States and potential economies of scale in the U.S. counterpart industry are the variables most closely correlated with intraindustry trade suggests once again that economies of scale reflect in large part the ability to spread intangible asset costs over a wider range of production.

6.3 Integrative Models

There has been a general recognition in trade literature of the need to combine the general equilibrium and industrial organization approaches. Over the past several years, there has developed a stream of literature that accomplishes this task at the theoretical level. This is done by dividing each economy into two sectors, one where there are constant returns to scale and perfect competition and one where there are economies of scale, differentiated products and imperfect competition. Assuming free entry and different factor intensities in the two sectors, it should then be possible to provide a much fuller explanation of modern trade patterns than was previously possible with either the perfect competition, general-equilibrium model or the imperfect competition, partial-equilibrium model. The clearest and most thorough examination of this sort of theoretical model is found in *Market Structure and Foreign Trade* by Elhanen Helpman and Paul R. Krugman.[11] Among other accomplishments, this literature has succeeded in incorporating in a comprehensive model several characteristics of modern trade patterns, including intraindustry trade, product differentiation and the role of multinational corporations.

One of the first major attempts to build an empirical model that incorporates major features of this literature is found in *Trade, Industrial Policy and Canadian Manufacturing* by Richard Harris with David Cox. This work is widely recognized as an important methodological advance in our understanding of the determinants of trade in Canada.

HARRIS, RICHARD G. with DAVID COX, *Trade, Industrial Policy and Canadian Manufacturing* (Ontario Economic Council: 1984) and "Summary of a Project on the General Equilibrium Evaluation of Canadian Trade Policy" in Whalley, ed., *Canada-United States Free Trade* (Toronto: University of Toronto Press, 1985a), 157-78

Harris and Cox have undertaken a very extensive modelling exercise that integrates aspects of both the industrial organization and general equilibrium literature. From the industrial organization literature they incorporate partially collusive pricing and increasing returns to scale in the manufacturing sector. From the factor endowment approach, this model provides, through general equilibrium analysis, the capacity to analyse the effects of policy changes on a major macroeconomic variable (the real wage rate) and to examine the sectoral adjustments within Canada that free trade produces through wage changes. The model is not, however, a full-blown international general equilibrium model of the sort used by John Whalley or of the sort developed at the University of Michigan. It is rather a single nation model with export and import elasticities used to describe trade possibilities. As such, it cannot fully assess the international reorganization resulting from the policy experiments examined.

While the mathematical formulation of the model is complex, the adjustment process that results from multilateral and bilateral free trade is straightforward, given its key assumptions, which are: (1) trade restrictions are the fundamental barrier to the achievement of optimum scale of production in Canadian manufacturing; (2) capital is available to Canadian firms in unlimited amounts at its current international rental price; (3) there are sufficient potential economies of scale in manufacturing to absorb displaced labour at a wage rate well above that prevailing in the economy now; (4) collusive pricing is widespread in Canada now and would be fully eliminated by the removal of Canadian trade barriers; (5) non-manufacturing sectors are already perfectly competitive and operate at optimum scale levels; and (6) labour is perfectly mobile between sectors and regions.

The removal of domestic and foreign tariff barriers, which are concentrated in the manufacturing sectors, has two main effects. It provides unhindered access to a much larger market for Canadian producers and it subjects Canadian firms to the full force of international competition. These effects force firms to specialize in lines of production where they can compete successfully with foreign firms. Competition puts an end to collusive pricing and ensures that only by producing at a near-optimum scale can firms earn a normal return. This results in intraindustry specialization and much longer production runs. Since trade barriers are assumed to be the sole barrier to optimum scale, productivity rises to levels approximately equal to those in the United States. Since capital is assumed to be available in unlimited amounts at its initial international rental price, these productivity gains cannot accrue to capital and must accrue entirely to the only other factor of production in the model: labour. Real wages in manufacturing thus rise until they equal the new higher marginal product of labour in that sector. Since workers are assumed to be fully mobile between sectors, labour must flow toward the higher wage manufacturing industries until the wage rate in all sectors and regions reaches the level available in the manufacturing sector. This rise in wages imposes losses on perfectly competitive nonmanufacturing industries in proportion to their use of labour. Wage rises lead to cost increases, negative profits and industry exit among existing firms and require longer production runs by remaining firms to reduce costs and restore normal profits. This, once again, produces higher average productivity. There will be a resulting shift in production and employment from labour-intensive industries toward capital-intensive industries and the substitution of capital for labour within all industries. Higher real wages produce large-scale capital-labour substitution which in turn requires large capital inflows. Higher wages produce an expansion of the domestic Canadian market of roughly equivalent proportions. Since "industries with significant scale economies are thought to be more capital-intensive than industries without scale economies," higher wages play a role in diverting resources toward increasing-return industries and in producing still larger productivity gains.[12]

The combination of the initial rise in productivity in manufacturing, the rise in labour productivity associated with resource reallocation toward capital-intensive sectors and the further increase in productivity associated with rising capital intensity within each industry together produce an economy-wide rise in productivity, and therefore in wages, of about 25 percent in Harris's simulation of multilateral free trade. Other results include a 67 percent increase in the average length of production runs in Canada, far fewer firms and an 8.6 percent welfare gain for Canada.[13]

The great value of general equilibrium analysis is that it allows the identification of changes in economy-wide variables such as total spending, the wage rate, price levels, exchange rates and capital flows. It also allows the examination of the intersectoral adjustments these effects produce within the economy. In the Harris/Cox model, the design of the model ensures that the consequences of changes in trade policy fall exclusively on one macroeconomic variable: the wage rate measured in terms of "a bundle of imported goods whose price is assumed to be constant."[14] The 25 percent rise in wage rates that Harris projects is thus a rise in wages measured in Canadian dollars combined with appreciation of the Canadian dollar relative to foreign currencies.

Industries that grow in terms of value-added and employment in this model display some or all of the following characteristics: (1) unexploited economies of scale; (2) low levels of initial protection; (3) capital-intensive technology; (4) high export elasticities; and (5) moderate degrees of import competition.[15] Specifically, industries which generate a 10 percent or more increase in employment, ranked in order of their proportional increase in employment, are: (1) transportation equipment; (2) paper and allied products; (3) textiles;

(4) agriculture; (5) forestry; (6) fishing; (7) primary metals; (8) printing and publishing; and (9) mining. Losers, defined as industries with a greater than 10 percent decline in employment, are: (1) leather; (2) miscellaneous manufacturing; (3) machinery; and (4) knitting mills.[16] This listing does not seem to confirm the repeated assertion on the part of Harris and others that the principal beneficiaries of free trade are secondary manufacturing industries. While the transportation equipment industry (i.e., auto) accounts for nearly half the total gain in output, most of the other "winners" are, as in factor endowment models, resource-based industries. The source of this apparent discrepancy lies in the fact that the model includes one very large industry simply titled "Others" which appears to be composed primarily of construction and various kinds of services. "Others" accounts for approximately 40 percent of total pre-free trade employment and suffers an employment loss of approximately 6 percent (approximately 205,000 jobs), thus providing the displaced labour to allow employment growth in both the manufacturing and resource sectors.[17]

The Harris work is widely recognized as an important advance in our understanding of the pattern of trade adjustment in Canada. However, it produces many results that are implausible. In making the leap to this synthesis, Harris had to jettison many of the refinements and qualifications that had been developed in the industrial organization and general equilibrium-factor endowment literature over the years. For example, production in the Harris model is described entirely in terms of two factors of production: undifferentiated labour and homogeneous capital. This flies in the face of the lessons of most recent work in the factor endowment stream, which stress the need to take account of other factors such as human capital and technological endowments.[18]

A partial response to this criticism is offered by Markusen: "the assumption of no sector specific factors such as entrepreneurship, specific human and physical capital, etc., is probably reasonable in a long-run model, which is after all what the [Harris] model is. Most of these factors can be transformed in the long run, though they certainly matter with respect to adjustment costs."[19] This logic can be extended to nonsector-specific factors such as human capital only if all the characteristics of countries that result in international differences in relative endowments of such factors (e.g. education, research and development intensity, attitudes to entrepreneurship and work, etc.) were the result of trade barriers alone. To the extent that this is the case, nothing but potential economies of scale and the size of each nation's labour force determines the location of economic activity in the long run. In fact, Harris and Cox conclude "the traditional doctrines of comparative advantage as developed in the Heckscher-Ohlin neoclassical theory of trade are quite inappropriate for the Canadian economy."

In long-run models of this sort where no account is taken of national factor endowments other than the number of workers and where little or no modelling of the international interaction between economies takes place, there is nothing to determine in which country any industry will locate. All that can be said is that with the removal of trade barriers, firms operating at less than the minimum optimum scale would disappear from all countries. The remaining efficient firms would be randomly distributed around the world until all labour and capital is employed worldwide and the return to each factor is uniform across countries.

The international location of industries is, of course, not random but takes account of, among other things, relative factor endowments of land, natural resources, human capital and entrepreneurship. While ignoring such factors may be useful in highlighting the reallocative forces associated with the displacement of less than optimum scale firms following upon trade liberalization, it nevertheless is a simplification that seriously distorts the sectoral and regional implications of trade liberalization. For example, the high correlation between human and physical capital found by several analysts suggests that adjustment to the high-productivity capital-intensive economy envisaged by Harris could be severely limited by the available supply of highly trained managers, technicians and trades people in Canada.

In entirely rejecting comparative advantage in the Heckscher-Ohlin tradition, Harris and Cox have sacrificed much of the explanatory power of modern trade theory.

While it is certainly true that economies of scale tend to lead to the production of entire product lines for the available market in a single location, it is also true that relative factor prices and endowments will ultimately determine the location of particular lines. In the absence of full factor mobility, trade will serve as the primary vehicle whereby the services of plentiful factors are exported and scarce factor services are imported. The new models developed by Krugman, Helpman and others (and employed by Harris) do not indicate, as Harris suggests, that factor endowments are irrelevant. Rather they provide a framework for understanding intraindustry trade within the context of *net* trade in the embodied services of factors of production. In fact, two of the leaders of this school, Elhanen Helpman and Paul Krugman, conclude that on the whole factor endowments, when properly interpreted, perform remarkably well in explaining worldwide trade patterns.[20] To quote:

> One of the basic messages. . .is that the theory of comparative advantage is alive and well – but it has lost some of its monopoly position. Even with economies of scale and imperfectly competitive markets, for a wide variety of market structures, differences in the characteristics of countries are a major predictor of the pattern of trade. In a world where increasing returns are present, however, comparative advantage resulting from differences between countries is not the only reason for trade.

> Economies of scale provide an additional incentive and will give rise to trade even if countries are identical in tastes, technologies and factor endowments.
>
> Our general view is of a pattern of trade shaped by the underlying exchange of factors but with an overlay of additional specialization to realize economies of scale.[21]

Within the context of factor endowment theory, Helpman and Krugman also provide a sophisticated model for analysing intrafirm flows of headquarter services such as research and development and management. This analysis is particularly relevant to Canada, where multinationals play such a major role. Such services can be viewed as critical factors of production, having a major influence on trade patterns. Canada, with a level of direct foreign investment much higher than other industrialized nations, is a heavy importer of such services. The modern theory of the multinational corporation suggests that the opportunity to profitably exploit control of such assets is the driving force behind the development and spread of multinational corporations.[22] The incorporation of such factors into the Harris model would be extremely difficult but is basic to an understanding of trade changes in the medium term, prior to the hypothetical point in time where all such differences are assumed to disappear.

The quantitative results obtained by Harris and Cox have also been widely questioned because the elasticities and tariff estimates used are inappropriate for a variety of reasons.[23] For example, Harris uses Whalley's (1980) estimates of tariffs and ad valorem equivalents on non-tariff barriers for U.S. trade with Japan and the EEC; estimates that are, in Whalley's view, entirely inappropriate for an examination of U.S. trade with Canada.[24] As Whalley (1984) notes, Canadian and U.S. producers already enjoy preference in each other's markets either through formal agreements such as the Auto Pact or through exemption from barriers erected against third country producers. The Harris and Cox scale estimates are also suspect.[25]

A further concern with the Harris model is its treatment of capital flows, trade flows and exchange rates. Essential to the rise in productivity throughout the economy is large-scale capital-labour substitution. This is apparently achieved through massive capital inflows. This would tend to cause further appreciation of the dollar and to hurt Canada's merchandise trade balance. Yet current account balance is assumed throughout.[26]

WIGLE, R., "General Equilibrium Evaluation of Canada-United States Trade Liberalization in a Global Context," Mimeo, April 1986, Presented to the Canadian Economics Association Meetings, Winnipeg, May 29, 1986

The most sophisticated general equilibrium model in use at a Canadian university has been developed by John Whalley of the University of Western Ontario. While it has less industries than does the Harris model, it is a truly international model in that it can take account of global cross-price effects resulting from trade policy changes. In contrast to the Harris approach which uses a single country model with an international sector represented by exogenous elasticities, the Whalley model is capable of taking full account of adjustments abroad.

Wigle uses the Whalley model to carry out trade experiments analagous to those conducted by Harris. Noting difficulties in the estimation of the tariff equivalent of non-tariff barriers, his first experiment involved only the removal of Canadian and U.S. tariffs on each other's trade. Given the Free Trade Agreement actually negotiated, this is a good approximation of the liberalization achieved. This experiment also assumes no capital mobility between Canada and the U.S. This experiment finds that free trade produces a small *net loss* in Canadian welfare. That loss is a result of two factors: the higher tariff levels in Canada than in the United States at present and the impact of the improved efficiency of Canadian production after trade liberalization on the terms of trade between the two countries. The former leads to a situation where the loss to Canada from the removal of its tariffs on imports from the U.S., which is the sum of the resulting loss to Canadian producers and to the Canadian treasury less the gain to Canadian consumers, exceeds the net gain from increased access to U.S. markets achieved with the abolition of U.S. tariffs on Canadian exports. Increased access to the U.S. leads to lower costs of production and therefore lower prices for Canadian goods exported to the United States. While the volume of output increases modestly in all industries except services and non-traded goods, Canada's terms of trade decline by 2.6 percent, so that the net effect, measured in terms of international purchasing power, is a small net loss.

When Wigle modifies the Whalley model to incorporate the removal of all tariff and non-tariff barriers in a multilateral context and to allow the international mobility of capital, he finds a net welfare gain for Canada of 2.2 percent of GNP (about one-quarter the gain found by Harris in the comparable experiment).

Assessing bilateral rather than multinational free trade but allowing for global cross-price effects, the net gain for Canada is only 0.4 percent of GNP, compared to the 9.0 percent estimated by Harris. In this experiment, average production runs in Canada increase 9.3 percent, compared to the 67 percent increase calculated by Harris. Wigle attributes much of this difference to the fact that the welfare effects of inefficient trade diversion associated with bilateral trade liberalization are not well captured in a single-country model like the one Harris uses but are captured in this global framework.

The small number of industries in the Whalley model limits the conclusions that can be drawn about sectoral and regional implications of free trade. It does appear, however, that the negative terms of trade effects occur primarily in the previously inefficient and non-competitive portions of the manufacturing sector, particularly machinery and equipment. In contrast, the tariff removal experiment generated increases in production in the agriculture, mining and energy sectors of 1.2, 1.3 and 1.6 percent, respectively. Since these sectors are characterized in the Wigle/Whalley model by few tariffs, no unrealized economies of scale and competitive markets, they are not likely to face deteriorating terms of trade as a result of trade liberalization. As a result, small but positive income gains should accrue to producers in these sectors which are important to the Prairie provinces.

6.4 Econometric Studies

DUNGAN, PETER, "The Macroeconomic Impacts of Free Trade with the United States: Lessons from the FOCUS-PRISM Models," University of Toronto Department of Economics/Institute for Policy Analysis, Working Paper DP 85-6, November 1985

INFORMETRICA LIMITED, "Free Trade: The Economic Case is Positive," *Monthly Economic Review* (November 1985)

Econometric studies undertaken by Peter Dungan of the University of Toronto Institute for Policy Analysis and by Informetrica examine the effects of free trade on output, employment, wage rates and exchange rates. These models, unlike Harris's, are incapable of generating reorganization effects and economies of scale internally. The studies instead assume arbitrary rates of productivity growth arising from free trade. Dungan assumes an additional productivity enhancement in the economy of 0.3 percent per year. Informetrica assumes that total factor productivity in manufacturing rises an extra 0.5 percent per year for ten years as a result of free trade. These models predict exchange rate appreciation of 2.8 percent and 2.0 percent respectively over ten years as a result of free trade.[27] Real wages rise 2.7 percent and 0.6 percent, respectively, over the same period. In the Dungan study, employment in Canada rises through the first five years to about 70,000 (0.57 percent) above the base case and then declines relative to the base case so that by 1995, employment is slightly below (approximately 20,000 jobs) the level that would prevail in the absence of free trade. In the Informetrica study, employment rises throughout to 73,000 above the base case in 1997 and 125,000 above the base case in 2005.

In examining regional consequences, neither study takes account of the interregional employment changes arising from intraindustry adjustment. Rather they take the current industrial structure as given and allocate national effects to regions on the basis of existing industry shares.

Both studies note that the tariff removal would cause a reduction in federal government revenues of $6-8 billion by 1997. The Dungan study shows that personal income tax increases to offset this revenue loss would cut the output gain by one-half and the employment gain by up to two-thirds. Informetrica assumes that the revenue shortfall would be made up by imposing an offseting increase in the sales tax. This would reduce, but not entirely eliminate, the consumer price decline associated with tariff removal. Both studies also note that free trade would provide an opportunity to reduce interest rates relative to those in the United States. This would moderate the exchange rate appreciation associated with the decline in relative prices between Canada and the United States. Both effects would promote increased production in Canada. It is clear from these models that the macroeconomic policies adopted by the Canadian government in response to the effects of freer trade would have a substantial bearing on the sectoral and regional outcomes.

In the Dungan study, Alberta, the only Prairie province examined, experiences, by 1995, the largest employment decline of any province (0.48 percent). In contrast, the Informetrica study shows Alberta experiencing the smallest employment gain to 2005 (0.4 percent). Saskatchewan experiences a gain equal to the national average (0.8 percent) and Manitoba experiences a larger increase (1.3 percent). These changes, whether increases or decreases, are very small. By way of comparison, the annual trade-policy induced employment changes implied in these models are about one-tenth the size of the *annual* increase in the labour force in recent years associated with the increasing participation rate among Canadian women.

MAGUN, SUNDER, SOMESHWAR RAO and BIMAL LODH, *Impact of Canada-U.S. Free Trade on the Canadian Economy*, Economic Council of Canada Discussion Paper No. 331, August 1987

The Economic Council recently released with considerable fanfare a major study that measures the impact of Canada-U.S. free trade on output and employment for thirty-six industrial sectors and for the ten provinces. In the words of Council Chairman Judith Maxwell, this study "strongly suggests that a comprehensive bilateral free trade agreement with the United States will provide significant economic benefits to all Canadians."[28]

This study finds results that are in the middle range of gains previously estimated from free trade: 2 to 3 percent of GNP.

What makes this study particularly interesting is that its conclusions about the sectoral and regional consequences are quite different from those produced by either factor endowment or general equilibrium studies.

The factor endowment studies of Postner and Pinchin suggest that, in response to free trade, resource industries would expand primarily at the expense of the labour-intensive manufacturing activities in central Canada that currently enjoy a disproportionate share of Canadian tariff protection.

The general equilibrium study produced by Harris and to a lesser extent Wigle's study, indicate growth resulting from free trade will be centred in manufacturing and to a lesser extent resource industries at the expense of the "other industries" sector, composed primarily of services and construction.

In contrast, the Economic Council study produced by Magun, Rao and Lodh concludes that the greatest gain would occur in construction and services at the expense of a limited number of labour-intensive manufacturing industries.

Whereas the Postner and Harris approaches conclude that the net benefits accrue primarily to specific regions — the west and Atlantic regions in the former case and central Canada in the latter — this Economic Council study finds an almost uniform proportional distribution of the net benefits from free trade across the ten provinces.

Magun, Rao and Lodh combine three models: the Economic Council's CANDIDE 3.0 large-scale macro model and the national and regional input-output models of Statistics Canada.

Within the CANDIDE 3.0 model, the impetus that produces the gain is, as in other models, a large fall in the price of imported goods. Unlike other models, however, the ECC study focusses initially on the impact of this price shock on real incomes in Canada rather than on the competition lower-priced imports provide for competing Canadian goods. In order to generate the full impact of free trade over the period 1987-95 examined in the model, an admittedly unrealistic assumption is adopted: that all tariff and non-tariff barriers are immediately removed. The result is a 4.2 percent drop in the price of imports in year one (1987), which produces a 1.7 percent fall in the consumer price index. Coupled with virtually no change in nominal wages (+0.1 percent), the result is an immediate 1.8 percent jump in real wages. The drop in import prices is produced through the removal of all Canadian tariff and non-tariff barriers[29] against imports from the United States coupled with an immediate 1.1 percent jump in the U.S. dollar value of the Canadian dollar. The dollar appreciation, in turn, arises from a reduction in expected inflation produced by the fall in prices.

Magun, Rao and Lodh note that the direct effect of free trade on the trade balance is negative with the level of imports increasing more than exports. This produces a deterioration in the trade balance and an initial reduction in Canadian employment. However, the model also concludes that this initial net trade effect is swamped by the real income gain produced by falling import prices.

It is assumed that the benefit from the removal of tariff and non-tariff barriers is entirely transmitted to Canadian consumers in the form of lower prices for imported goods. This in turn produces a sharp rise in real wages and sets in motion a "virtuous cycle."

Lower prices make possible lower wages in domestic industries which in turn lead to lower prices for domestic goods and services and further rises in consumption, both because of a further increase in real incomes and because lower prices in the present produce expectations of lower prices in the future which lead to reduced savings and more spending. The rise in consumption raises both imports of manufactured goods and domestic production of goods and services.[30] The rise in domestic demand, in turn, results in a very substantial increase in investment in subsequent years.

This pattern is reinforced through the operation of the foreign exchange market. The rise in investment, coupled with reduced domestic savings, creates a need for increased capital inflows from abroad. These inflows more than offset the initial deterioration in the trade balance. As a result the Canadian dollar is expected to appreciate, producing further reductions in the prices of imported goods. Figure 4 provides a diagramatic view of the principal avenues of causation in this model (see p. 113 below).

Five principal objections can be raised to this view of the effects of free trade. First, the lack of a direct competitive effect on the prices charged by Canadian import-competing industries is implausible. It is precisely this effect that most analysts see as the prime force producing rationalization in Canadian industry. However, the inclusion of such a connection would lead to an immediate reduction in Canadian nominal wages as a reflection of lower product prices. This in turn would reduce the real income shock that is essential to the benefits predicted.

Second, the real income shock is a direct result of the assumption that all trade barriers are removed immediately. The rationale provided for this simplification is the need to show most of the effects of free trade within the eight-year time frame of the model. It is not clear, however, that a phased-in removal of protection in a longer-term version of this model would produce similar overall results. Much of the gain in employment and investment appears to depend on the real income shock produced by pre-free trade nominal wages combined with post-free trade import prices.

Third, it is difficult to see what produces the Canadian dollar appreciation which is essential to the model. Most models of this sort, including those of Postner and Harris, assume balance between imports and exports of goods and services. In this model, in contrast, three developments produce an erosion of the current account balance: (1) the removal of larger Canadian tariffs produces immediately a larger increase in Canadian imports than exports; (2) the rise in real income in Canada produces a further increase in imports without a corresponding income effect in the U.S.; and (3) rising demand in Canada increases corporate profits and, presumably, increases dividend remissions to foreign investors. In other models, this deterioration would be corrected by depreciation of the Canadian dollar.[31] In the current ECC model, the deterioration in the current account balance is apparently more than offset by a rise in capital inflows. These inflows are required to make up the difference between rising investment and falling domestic saving. This need is not sufficient, in itself, to produce the required inflow, however. The logical adjustment to induce the needed capital inflow would be a rise in real interest rates in Canada. However, the Council's model assumes a constant interest-rate differential. Note that, were higher interest rates in Canada permitted, they would undermine the spending boom produced by rising real incomes. In the exchange rate equation, appreciation is produced by the expectation of reduced inflation in Canada relative to inflation in the U.S. This is a circular argument. In contrast, exchange rate depreciation, arising from deterioration in the trade balance, would offset the import price cuts associated with the removal of tariff barriers and produce higher expected inflation.

Fourth, the mechanisms which produce productivity gains are questionable. The study downplays the potential economies of scale achievable from expanded market access.[32] Rather it suggests that the 70 percent of plants in Canada that are suboptimal in size would be forced to rationalize and merge. This would involve major adjustments for several industries that are weak or have a large number of inefficient plants, including the paper and allied industries, printing and publishing, miscellaneous manufacturing and the food and beverage industry.[33] In another paper, Rao estimates that if all suboptimal industries operated at minimum efficient scale, unit costs in manufacturing could decline by 3.8 percent. However, many of the firms in these industries are essentially local service industries (dairy, print shops, etc.) rather than nationally oriented manufacturers. Note also that two of these industries, printing and publishing and food and beverage, retain a good degree of protection under free trade. Furthermore, "miscellaneous manufacturing" is by definition diverse and not conducive to agglomeration. Rao also concludes that an important mechanism whereby bilateral trade liberalization would raise productivity would be the reduction in Canadian wage-price rigidities produced by further economic integration and competition.[34] This view confirms the fears of some in the labour movement and farm groups that free trade would erode their bargaining position.

Fifth, the exclusion of trade liberalization in the service sector in this model is unrealistic. It results in overestimation of the potential benefits since the large service sector growth projected in the model is effectively confined to Canada. The proposed Canada-United States Free Trade Agreement does envisage significant liberalization of trade in services.

The adjustment process outlined by Magun, Rao and Lodh is also thrown into question by Canadian experience over the past decade. The Tokyo Round tariff reductions over that period have been about equal in magnitude to the reductions envisaged in the proposed Agreement. Yet Canada has seen no real wage gain, no currency appreciation and no closing of the productivity gap between Canada and the United States. In fact, the opposite effects have occurred.

6.5 Employment Studies

MAGUN, SUNDER, "The Effects of Canada-U.S. Free Trade on the Canadian Labour Market," Presented at the Canadian Economics Association Meeting, May 29-31, 1986, Winnipeg (first draft)

Magun carries out his analysis using an input-output model developed at the University of Maryland by Professor Clopper Almon and his associates. This model links the economies of nine industrialized countries: Canada, the United States, Japan, West Germany, France, Italy, Belgium, the United Kingdom and Holland. Magun uses this model to track direct and indirect employment changes by industry to the year 2000 with and without Canada-U.S. free trade. Three sorts of effects are examined: (1) direct relative price effects on trade flows, output and employment; (2) indirect cost of production effects resulting from the removal of tariffs on intermediate imports from the United States; and (3) real income effects arising from the reduction in consumer prices as tariffs on consumer goods and producer inputs are removed, leading to higher per capita real incomes.

Magun makes a number of assumptions. Exports are assumed to be differentiated products and thus cost reductions are reflected in lower export prices. There are no economies of scale. There is no change in nominal wages. It also appears that he assumes there is no trade in services and that foreign exchange rates are unaffected by the move to free trade.

The direct effect in Magun's model of the move to free trade is a reduction in net exports and hence a decline in employment. This effect is more than offset by the increase in real income that arises from the assumption of constant nominal wages coupled with lower prices. These higher real incomes lead to greater consumption of both domestically produced goods and services and imported goods. This generates a net increase in employment.

Increased domestic demand leads to further investment and higher employment and incomes. Seventy-one percent of the net increase in employment that results from this process occurs in service industries. Four non-service industries also show significant employment gains: agriculture, mineral fuels, machinery and transportation equipment. Large declines in employment are found in light manufacturing industries such as leather and textiles. Women bear the brunt of the job losses in light maufacturing but are also the primary beneficiaries in the service industries. Most of the job increases occur at lower skill levels.

As with other studies of this sort, the industry results are often implausible. Employment growth in agriculture, for example is apparently expected to result from a large increase in grain exports caused by the negotiation of bilateral free trade with the United States. Since both countries are major grain exporters, it is difficult to imagine how that might come about. Similarly the growth in employment in the machinery industry is the result of a large increase in net exports of machinery. It is interesting to note that machinery is one of only three industries that Harris, Williams and Postner all agree would be net losers under bilateral free trade (leather and miscellaneous manufacturing being the others).

Magun's assumptions are also very difficult to accept. The assumption that exchange rates would not change while relative prices in Canada are falling and imports are rising faster than exports seems incongruous. Similarly, and more importantly, the phenomenon of constant nominal wages in the face of falling prices, constant returns to scale and rising imports appears to be the main force accounting for the rises in real incomes and in employment.[35] Rising employment in the service sector, where productivity is relatively low, also appears inconsistent with rising real incomes.

The absence of economies of scale distorts the results in a number of ways. One of the most important is in the resulting conclusion about changes in occupational structures. Rationalization associated with trade liberalization would be achieved largely by reducing the overhead costs resulting from the tariff-induced proliferation of small inefficient operations. These costs arise primarily from the unnecessary duplication of administrative activities. Further, if the Auto Pact is any indication, free trade is likely to lead multinational firms to centralize administration and accounting functions at head offices. Yet, two of the three occupations that show the largest absolute growth in Magun's model are Managers and Administrators (Non-Government), and Bookkeeping, Account-Recording and Related Occupations.

Lastly, the exclusion of trade in services from this model is unrealistic since this is one of the fastest growing areas of trade and since increased trade in services is one of the primary objectives of the Free Trade Agreement. In this model, that assumption effectively ensures that most of the positive employment impact of rising real incomes occurs in the domestic market. Thus, this model produces a large overestimation of the net positive effect of free trade on employment in Canada.

WONNACOTT, R.J., "On the Employment Effects of Free Trade with the United States," *Canadian Public Policy* 12, no. 1 (March 1986b)

Wonnacott identifies three possible effects of free trade on Canadian employment: (1) job losses associated with removal of Canadian protection and the resulting loss of domestic markets to U.S. producers; (2) job gains associated with greater access to U.S. markets resulting from the removal of U.S. tariffs; and (3) job gains associated with avoiding the negative consequences of growing protectionism in the United States.

Wonnacott cites a yet to be released study by Harris which concludes that bilateral free trade would generate favourable employment effects in Canada.[36] As with Harris's other work, this result grows out of a narrow model that neglects all determinants of industrial location other than economies of scale. In addition, intrasectoral shifts in employment are neglected. Such shifts are very extensive in the Harris model. In his 1984 model, for example, the number of firms in the Canadian economy was approximately halved as a result of free trade. When one remembers that Harris's industries are very broadly defined, it is not credible to assume that intraindustry job shifts are costless.

Wonnacott also cites a study commissioned by the Ontario government which found 281,000 jobs in Ontario that were highly sensitive to free trade because they now operate behind significant trade barriers and have low export orientation; 275,000 jobs that would be sensitive to free trade but which have demonstrated export strengths; and 107,000 jobs that are less sensitive and should not experience difficulty in adjusting to increased import competition. He concludes that industries in the latter two groups, which account for 382,000 jobs at present, are likely to grow in the face of free trade while industries accounting for only 281,000 jobs face employment declines. While challenging the concern raised by references to "281,000 jobs at risk," Wonnacott does not draw any conclusion about the net effect on employment from this Ontario study.[37]

Wonnacott believes that the clinching evidence with respect to the net employment effects of bilateral free trade is the potential negative effect of protectionist measures by the United States. He estimates that each one million dollars worth of exports to the United States is responsible directly or indirectly for 15.9 jobs in Canada. Thus, the 1984 total of $85.46 billion dollars in exports to the U.S. generated 1,360,000 jobs in Canada.

While Wonnacott calls these 'export-sensitive jobs,' he does not suggest that this many jobs could be lost as a result of any conceivable policy adopted by the United States. He cites three reasons why the failure to gain a free trade treaty would *not* result in this large a job loss: (1) "only part of Canadian exports to the United States would be lost from any conceivable U.S. protectionist policy" (that is, even making the most extreme assumption, only about one-tenth of Wonnacott's "trade sensitive jobs" would be threatened);[38] (2) "moreover, some of the export sales lost in the United States would be deflected into third country markets"; (3) "some would be recaptured because of balance of payments adjustments — in particular, a fall in the Canadian dollar . . . ."[39] It is also difficult to conceive of a situation where the U.S. would undertake a policy of massive protectionism and Canada would not respond in kind, causing the substitution of Canadian goods for American. Wonnacott's estimate is thus of little practical value, except perhaps to give free trade advocates a very large number to wave back at critics like the Canadian Labour Congress which has suggested that as many as two million jobs could be at risk as the result of a free trade agreement. It definitely does not achieve Wonnacott's goal of "beginning to shed some light on the potential effect on Canada of status quo policies in the face of a broad application of protection by the United States."[40]

NOTES

[1] Postner, *op. cit.*, p. 27.

[2] Ibid., pp. 29-30.

[3] Ibid., p. 31.

[4] Ibid., p. 106.

[5] Ibid., p. 105.

[6] Tremblay, *op. cit.*, raises questions about the basic validity of the Heckscher-Ohlin approach to trade patterns. These concerns are addressed below, pp. 102-3.

[7] Note that using the early 1980s resource glut period to judge the relative strength of Canadian manufacturing would be equally misleading.

[8] Pinchin, *op. cit.*, pp. 96-97.

[9] Baumann, *op. cit.*, p. 145.

[10] See G.K. Helleiner, "Transnational Corporations and Trade Structure: The Role of Intrafirm Trade" in H. Giersh, ed., *On the Economies of Intra-Industry Trade* (Tubrigen: Paul Siebeck, 1979), pp. 159-81, and *Richard E. Caves, Mulinational Enterprise and Economic Analysis* (Cambridge: Cambridge University Press, 1982).

[11] E. Helpman and P. Krugman, *Market Structure and Foreign Trade* (Cambridge: MIT Press, 1985).

[12] Harris and Cox (1984) *op. cit.*, p. 75. See Figure 3 (p. 112 below) for a diagramatic depiction of this adjustment process.

[13] Harris, "Summary of a Project on the General Equilibrium Evaluation of Canadian Trade Policy" in J. Whalley, ed., *Canada-United States Free Trade* (University of Toronto Press, 1985a), pp. 157-78, 161.

[14] Harris and Cox (1984), *op. cit.*, p. 70.

[15] Harris (1984), *op. cit.*, pp. 110-11.

[16] Harris and Cox (1984), *op. cit.*, p. 109.

[17] Harris and Cox (1984), *op. cit.*, Tables 13 and B2. This result is diametrically opposed to the conclusion reached by Magun in his recent study for the Economic Council of Canada. He concluded that fully 71 percent of the new jobs resulting from free trade would be in the service sector.

[18] See Leamer, *op. cit.*, for example.

[19] J. Markunsen, "Gains from Trade in the Presence of Scale Economies and Imperfect Competition," in J. Whalley, ed., *op. cit.*, p. 141.

[20] Helpman and Krugman, *op. cit.*, pp. 261-62.

[21] Ibid.

[22] Caves, *op. cit.*; Rugman, *op. cit.*

[23] See, for example, S. Whalley, "Trade, Industrial Policy and Canadian Manufacturing: A Review Article," *Canadian Journal of Economics* 17, no. 2 (May 1984), and R. Wigle, "General Equilibrium Evaluation of Canada-United States Trade Liberalization in a Global Context," Paper presented to the Canadian Economics Association Meeting, Winnipeg, May 29, 1986.

[24] Whalley (1984), *op. cit.*, p. 393.

[25] See Wigle (1986), *op. cit.*, for example.

[26] Harris and Cox, *op. cit.*, pp. 70-71.

[27] P. Dungan, "The Macroeconomic Impacts of Free Trade with the United States: Lessons from the Focus-Prism Models," University of Toronto Department of Economics and Institute for Policy Analysis, Working Paper DP 85-6, 1985, p. 18, and Informetrica, "Economic Impacts of Enhanced Bilateral Trade: National and Provincial Results," August 20, 1985, p. 7.

[28] J. Maxwell, foreword to S. Magun, S. Rao and B. Lodh, *Impact of Canada-U.S. Free Trade on the Canadian Economy*, ECC Discussion Paper No. 331 (August 1987), p. xiii.

[29] Excluding agricultural subsidies.

[30] The model assumes no liberalization of trade in services.

[31] An earlier version of the CANDIDE model used in the research underlying *Looking Outward* (1975) also used this assumption.

[32] See P.S. Rao, *U.S.-Canadian Productivity Gap, Scale Economies and the Gains from Freer Trade* (Ottawa: Economic Council of Canada, September 1987), for a full discussion of the merits of various estimates of economies of scale associated with free trade.

[33] Magun, Rao and Lodh, *op. cit.*, p. 57.

[34] Rao, *op. cit.*, p. 23.

[35] S. Magun, "The Effects of Canada-U.S. Free Trade on the Canadian Labour Market," Paper presented to the Canadian Economics Association Meeting, Winnipeg, 1986, p. 14.

[36] R. Wonnacott, "On the Employment Effects of Free Trade with the United States," *Canadian Public Policy* 12, no. 1 (March 1986b), p. 258.

[37] Ibid., pp. 259-60.

[38] In 1986, External Affairs Minister Joe Clark estimated that if all 300 protectionist bills then before the U.S. Congress were passed, $6 billion worth of Canadian exports would be threatened, and 146,000 jobs could be lost. Cited in J. Laxer, *Leap of Faith* (Edmonton: Hurtig Publications, 1986), pp. 59-60.

[39] Wonnacott (1986b), *op. cit.*, p. 260.

[40] Ibid., p. 262.

SEVEN

The Regional Pattern of Trade Adjustment

In 1984, Richard Harris and David Cox wrote:

> the embarrassing fact is that the importance attached to free trade by economists is often a belief hammered into them by years of training based on a tradition of analysing the inherent virtues of resource allocation by the unfettered hand of the free market, as handed down by Smith, Ricardo, and other great classical economists. This "belief" translates into the assertion that it is "self-evident" or "well established" that free trade is a major source of economic growth and economic welfare. This claim is made by most economists, certainly by most academic economists responsible for teaching in universities. One of the points we wish to make in this book is that, by the conventional standards of evidence in economics, the claim is not well founded.[1]

Despite the subsequent work of these authors and others, this assessment remains valid. While general equilibrium studies that incorporate imperfect competition and economies of scale have made a substantial contribution to our understanding of the forces that would produce industrial reorganization in the event of free trade on a bilateral or multilateral basis, they do not provide an adequate explanation of the resulting international or interregional specialization.

7.1 Theoretical Problems

In assessing the regional implications of trade liberalization, the incorporation of economies of scale makes analysis more complex.

Traditional general equilibrium studies that focus on current comparative advantage find large production gains for British Columbia and moderate production gains for the Prairies because of Canada's strong comparative advantage in resource production. These arise because the removal of trade barriers leads to the displacement of Canadian manufactured goods by imports and a subsequent depreciation of the Canadian dollar. Costs must then fall sufficiently in other sectors and regions to absorb the displaced labour via expanded resource exports. If these adjustment processes were prevented, the consequence would be higher unemployment.

The process envisaged in the Harris model is very different. The removal of trade barriers provides the opportunity and necessity for specialization and the realization of economies of scale within manufacturing. The resulting productivity gain leads to higher wages and/or currency appreciation. This in turn leads to growth in industries with great potential for scale economies (by definition, manufacturing) and in those that are capital intensive (manufacturing and resource-based industries) at the expense of service industries.

A model like Harris's can tell us nothing directly about the regional distribution of industries since they make no provision either for differences in factor endowments or for transportation costs, the two main forces that would determine the regional distribution of industries in the absence of protection. As in the international economy, production location is assumed to be random.

However, certain patterns can be inferred from existing production patterns and from the adjustment process suggested. In such a model, all manufacturing firms become more specialized and presumably more concentrated geographically. The present distribution of industry within Canada reflects existing regional factor endowments and, accepting the view that the consequences of economies of scale ought to be seen as an overlay on, rather than a substitute for, comparative advantage analysis, one would expect the present pattern of resource concentration in the west and manufacturing concentration in central Canada to continue. In fact, given the present concentration of manufacturing in central Canada and the prediction from the model of increased specialization in this sector, one might expect that pattern to be reinforced.

Secondly, any large fall in the cost of goods produced by large manufacturers in central Canada resulting from scale-economy-induced productivity gains would hurt the competitive position of small manufacturers serving local markets. The natural protection provided by transportation costs and custom-production to small manufacturers serving local markets in western Canada would, in some cases, be inadequate to offset cost and price reductions achieved by the large-scale eastern producers. On the other hand, higher wages would strengthen the relative position of capital-intensive industries. Most resource industries fall into this category so that a shift toward increasing resource dependence in the west could be expected.

Lastly, the industries that such a model suggests would be the greatest losers are service and miscellaneous industries. While many service industries tend to be headquartered in central Canada, their employment and production are more decentralized than those of manufacturing industries. The decline in the service sector would thus have almost as many negative consequences for the west as for central Canada.

To conclude, these two national models imply very different regional consequences; a problem that is only partially resolved through models that attempt to integrate the two approaches. To fully assess the consequences of free trade for the Prairies, we can look at a number of regional studies.

7.2 Regional Studies

Few studies have looked in detail at the regional consequences of freer trade. Six studies that attempt to assess the total net impact in specific regions are Shearer, Young and Munro (1971), Dauphin (1978), Pinchin (1979 and 1986), Tremblay (1985) and Wigle (1985).

SHEARER, R.A., J.H. YOUNG and G.R. MUNRO, *Trade Liberalization and Regional Economy: Studies of the Impact of Free Trade on British Columbia*, University of Toronto Press, Toronto, 1971

In this study the impact of the removal of tariffs by Canada, the United States, the United Kingdom and the European Community was evaluated. The net gain to British Columbia of the creation of this North Atlantic free trade area was estimated at 5.5 percent of 1963 personal income. This net gain was made up of four components: (1) a gain of $55 million from lower prices for consumer goods imported from the rest of Canada; (2) a gain of $60 million from lower prices for capital goods imported from abroad; (3) the removal of $60 million in deadweight production and consumption costs to the region resulting from the tariff; and (4) the removal of a $10 million loss in revenue on exports due to foreign tariffs. More than half the benefit derives from the removal of above-market prices on goods imported from eastern Canada. This study is carefully prepared and the estimates do not seem unreasonable for the early 1960s period to which they apply.

DAUPHIN, ROMA, *The Impact of Free Trade in Canada*, Economic Council of Canada, Ottawa, 1978

To examine the regional consequences of free trade, Dauphin took a two-region model with prototypes characterized by British Columia (resource exporter) and Quebec (producer of tariff-protected manufactured goods).[2]

With factors of production mobile within Canada and immobile internationally, Dauphin determined that free trade would lead to depreciation of the Canadian dollar and consequently to a significant rise in exports of resource-based products. This would increase the welfare of resource-producing regions at the expense of manufacturing regions. The rise in resource exports would further induce an increase in investment in the resource export sectors. Multiplier effects associated with both the increase in exports and the subsequent investment would lead to higher incomes, greater imports and increased non-resource investment in the resource-exporting region. The result in the labour market would be higher wages and/or an influx of labour into the resource-producing region. The impact in the manufacturing region would be the mirror image of this. Reduced production resulting from cheaper competing imports would lead to a reduction in investment and reinvestment in manufacturing. This in turn reduces domestic demand in the region and leads to lower wages and/or labour migration out of the region. Dauphin dismissed the possibility that economies of scale would allow significant rationalization and expansion in the manufacturing sector, noting that Canada has a comparative disadvantage in the production of most manufactured goods vis-a-vis the rest of world and particularly relative to the United States. This is due to Canada's relative abundance of raw materials and the relative scarcity of factors used intensively in manufacturing. This conclusion is in accordance with virtually all studies in the factor endowment tradition. Most recently, Leamer reconfirms this pattern with respect to Canada and provides an exhaustive study showing the close correlation between factor endowment and trade patterns across many countries.[3]

Dauphin finds the conclusion reached from this two-sector model particularly troubling because of the relative immobility of Quebec labour resulting from language and cultural differences. This immobility implies that the effects of free trade in that province will be primarily higher unemployment and lower wages rather than outmigration.[4]

Dauphin also notes that the effect of tariffs is to transfer income within Canada from the owners of resources to labour. Free trade would have the opposite effect, transferring income from workers to the owners of resources, including foreign-owned corporations and provincial governments in resource-rich provinces. On the other hand, the devaluation associated with freer trade would raise the interest cost paid by all provincial governments with debt denominated in foreign currencies. Since debt is much greater in resource-poor provinces, the combination of these effects would worsen regional inequality in Canada.

In the Prairie region, Dauphin estimates a gain in real income of approximately 4 percent from unilateral free trade. This gain would accrue primarily but not exclusively to the owners of resources.

PINCHIN, HUGH McA., *The Regional Impact of the Canadian Tariff*, Economic Council of Canada, 1979, and "A Framework for Assessing the Impact of Free Trade in North America," in William D. Shipman, ed., *Trade and Investment Across the Northeast Boundary: Quebec, the Atlantic Provinces and New England*, Institute for Research on Public Policy, Montreal, 1986

Pinchin's 1979 study confirms the common belief that the tariff has had the effect of producing a substantial transfer of wealth from the east and west to central Canada. This transfer was estimated at 2.0 percent of the disposable income of the peripheral regions in 1969, down from 3.9 percent in 1949.

This study also examines in detail the characteristics of production in the various regions of Canada. Ontario is found to have comparative advantage relative to other regions of Canada in the production of manufactured goods with eight characteristics: (1) plant economies of scale; (2) research and development; (3) concentration; (4) professional and technical manpower; (5) foreign ownership; (6) higher wages; (7) growth in the 1961-71 period; and (8) first trade date. These characteristics in turn tend to be associated with those industries within the manufacturing sector most likely to benefit most (or lose least) from trade liberalization: industries dependent on international rather than local or interregional trade.

As a result, freer trade could be expected to lead to the further concentration of manufacturing in Ontario unless it is accompanied by an aggressive regional development policy.

On the other hand, regions where manufacturing employment depends to a greater than average degree on local markets or interregional trade, rather than international trade, would suffer more from the removal of the Canadian tariff. Pinchin found this to be the case in Quebec and the Prairies. If the net effect of trade liberalization were, for example, to replace 100,000 jobs dependent on interregional and local markets with 100,000 jobs dependent on export markets, the net gainers would be the Pacific region (+2,535 jobs) and Ontario (+1,040 jobs). The losers would be Quebec (-2,835 jobs) and the Prairies (-1,075 jobs).[5]

Pinchin's more recent study (1986) suggests that there is little reason to expect the massive productivity gains from economies of scale in manufacturing that Wonnacott and Harris have projected. While it remains true that free trade is likely to increase the concentration of Canadian manufacturing in Ontario, there are few factors in favour of production in Canada to serve North America-wide markets. In Pinchin's study, the potential for scale economies is found to be correlated negatively with natural resource content, with the use of operatives and unskilled labour, and positively with high expenditures on research and development, with a large proportion of managerial, clerical and sales personnel and with the use of university-educated labour. The former characteristics reflect Canada's comparative advantage at present while the latter group reflects characteristics of U.S. comparative advantage. As a result Pinchin concludes:

> It then follows that any conclusion that Canadian manufacturers would rationalize their pattern of industrial production to obtain dramatic productivity benefits from the scale effects of free trade, without the help of special dispensation for dumping or other non-tariff assistance (such as the safeguards in the Auto Pact), must rest to a high degree on the peculiar *locational* advantages of plants in Canada.[6]

Three factors which militate against location in southern Ontario rather than in the United States following a bilateral free trade pact are: (1) the loss of protected Canadian market that previously made location of plants on east-west transport routes attractive; (2) the movement in recent years of population centres in North America toward the southwestern states; and (3) the border risk associated with locating in a country that contains only 10 percent of one's market.

TREMBLAY, RODRIGUE, "The Regional Impact of Free Trade in Canada," *The Canadian Journal of Regional Studies* 8, no. 1 (1985), 85-99

Tremblay suggests that the traditional Ricardian or Heckscher-Ohlin explanations of Canada's trade patterns are invalid because four key assumptions are violated: (1) factors of production must be immobile internationally and they are not; (2) firms are assumed to operate with constant returns and they do not; (3) firms must be competitive; and (4) full employment is required.

It is not necessary that all factors be internationally immobile in such a model. It is only necessary that more than one be and that these factors be used in different proportions in the production of different goods. (Note that Harris's study which Tremblay cites as superior to Postner's does violate this condition since it has only one immobile factor available in limited supply: labour.)[7] With respect to conditions two and three, a good part of the development of trade theory over the past ten years has been devoted to analysis of the extent to which general equilibrium models could retain their validity in the absence of perfect competition and constant returns to scale. Factor endowment tests are found to be remarkably robust.[8] With respect to full employment, it is generally recognized that the existence of modest unemployment is not a serious impediment to economic modelling.

As an alternative to comparative advantage analysis, Tremblay suggests that the results produced by Richard Harris with David Cox (1984) represent a better description of the likely consequences of free trade. Tremblay then allocates the effects calculated by Harris for each of the twenty-nine industries examined according to the existing distribution of production by industry in Canada. This procedure indicates a small increase in the share of manufacturing in each of Ontario, Quebec and British Columbia. This is due to the fact that these three provinces are locations of Harris's three largest winners: transportation equipment, textiles, and pulp and paper, respectively. In the resource sector, the procedure finds that the Prairies' share of output rises due to the importance of agriculture and mining (including oil and gas) to that region. These are also industries Harris suggests would expand substantially under free trade.

Even were the national industrial data generated by Harris reliable,this method of determining the regional consequences of free trade would be inappropriate. The Harris model relies on massive intraindustry rationalization with the number of firms declining by about one-half. The current regional distribution of industry reflects the effects of one hundred years of interprovincial and international protection.[9] There is no reason to believe from the Harris model that this pattern would be reproduced in the long run under free trade. One might expect rather with far fewer firms that it would be most unlikely that each region would continue to pursue as broad a range of industrial activities as it does in the absence of free trade.

WIGLE, R., "The Impact of Freer Trade with the United States: A Saskatchewan Perspective," Prepared for the Saskatchewan Department of Economic Development and Trade, July 1985

Wigle identifies a variety of potential effects of freer trade on the Saskatchewan economy and provides an estimate of their impact on provincial employment and welfare. He notes that, for provinces such as Saskatchewan with small manufacturing sectors, the effect of tariff removal alone would be very small since tariffs apply mainly to manufacturing activities that are concentrated in central Canada. For resource-producing provinces, the removal of non-tariff barriers is far more important. In particular, the ability of firms in the United States to initiate countervail actions that that are very costly to Canadian producers is seen as a serious impediment to investment in the province. Quantifying this effect is very difficult but it is clear that the removal of the uncertainty created by the possibility of countervail would promote investment in a variety of resource industries.

Wigle notes that consumer benefit associated with trade liberalization would be substantially greater with multilateral free trade than with bilateral free trade. Two factors account for this: the relatively low level of tariffs between Canada and the United States at present, and the consumer burden associated with quotas on clothing, textiles and automobiles from Asia.

In agriculture, the direct effects of freer trade with the United States would be small. Wigle concludes that agricultural output would rise by approximately $5 million (approximately 0.1 percent of provincial farm cash receipts) and that agricultural employment would rise by 520 jobs.

In the three major mineral markets, oil, potash and uranium, there has been ongoing concern about the threats of barriers to the United States market. The U.S. represents approximately 60 percent of the market for Saskatchewan potash and 28 percent of the market for uranium (1984 figures). An agreement that precluded the possibility of the imposition of barriers would provide security to these industries and promote investment in them. Wigle provides no quantitative estimate of the potential benefit to Saskatchewan's mineral sector of free trade with the U.S.

In the manufacturing sector, the increase in production runs resulting from access to larger markets is expected to lead to increased centralization in Ontario and Quebec, at the expense of smaller firms in Atlantic and western Canada. This effect would be mitigated by two characteristics of the manufacturing sector in Saskatchewan: (1) in certain industries, production is primarily of specialized products for local markets (e.g., some kinds of farm machinery); and (2) Saskatchewan producers enjoy a certain measure of natural protection due to transportation costs. Reduced costs for intermediate inputs would improve marginally the competitive position of Saskatchewan firms relative to firms in neighbouring states. The net effect on employment in manufacturing is an estimated gain of eighty jobs. Wigle projects that there would be a very limited amount of frictional unemployment as the manufacturing sector adjusted to free trade. However, Wigle does not examine the extent to which manufacturing in Saskatchewan is dependent on subsidies, regulation or government purchasing preference. Restrictions on these sorts of domestic nontariff barriers in the proposed bilateral trade deal may have a serious impact on the province's manufacturing sector.

In the service sector, Wigle predicts a decline in demand as the relative price of imported goods falls relative to the price of services and non-traded goods. (Contrast this conclusion with that of Magun and the Economic Council.) This would produce a decline in service sector employment of almost 300 jobs. Wigle does not address the possibility of free trade leading to expanded international trade in services.

Overall, Wigle concludes that there are significant gains in welfare to be had through bilateral trade liberalization. He estimates an annual net welfare gain from bilateral tariff liberalization of $98.8 million. This gain arises primarily from lower consumer prices and increased trade in resources.

Wigle is concerned that Canada may be pursuing bilateral liberalization at the cost of more fruitful multilateral trade reform. The latter is particularly important for Saskatchewan given its reliance on worldwide agricultural trade.

NOTES

[1] Harris and Cox (1984), *op. cit.*, p. 2.

[2] *Looking Outward* noted that of jobs protected by nominal tariffs in excess of 10 percent, 49 percent were in Ontario and 37 percent were in Quebec. The rest of the country shared only 14 percent of the tariff protected jobs.

[3] Leamer, *op. cit.*

[4] The Macdonald Commission, p. 39, thoroughly misrepresented Dauphin's results and conclusion as a result of one typographical error in a table. Dauphin, p. 104, "Increase in Real Wage" should read "Decrease in Real Wage."

[5] Pinchin (1979), *op. cit.*, p. 26.

[6] H. Pinchin, "A Framework for Assessing the Impact of Free Trade in North America," in William D. Shipman, ed., *Trade and Investment Across the Northeast Boundary: Quebec, the Atlantic Provinces and New England* (Montreal: Institute for Research on Public Policy, 1986), p. 104. Emphasis in the original.

[7] See above, p. 79.

[8] For a good review of this literature, see E. Helpman, "Increasing Returns, Imperfect Markets, and Trade Theory," in R.W. Jones and P.B. Kenen, eds., *Handbook of International Economics*, Vol. 1 (Amsterdam: North Holland: 1984), pp. 325-65.

[9] See Shearer, et al., *op. cit.*, p. 44.

EIGHT

Conclusions

This study has examined the impact of bilateral free trade on the Prairie region from a number of perspectives: historical, sectoral, regional, and macroeconomic.

From the viewpoint of specific sectors of importance to the region, the main concern has shifted over the past several decades from the high costs imposed through tariff protection of eastern suppliers to the potential disruption caused by arbitrary protectionist actions in the United States. Whether the Canada-United States Free Trade Agreement as currently drafted provides any significant improvement in this area has been a subject of extensive debate since the signing of the Agreement.

While it is generally acknowledged that the Agreement does not give most Canadian producers the assured access to the American market they had sought, some have argued that the negotiated dispute settlement mechanism does provide a considerable improvement over the status quo. This view is based on three provisions: (1) the establishment of dispute settlement panels to replace judicial review of final countervailing and anti-dumping rulings; (2) the requirement to specifically name the other party as subject to new rules implemented after January 1, 1989; and (3) the establishment of a Working Group to draft new rules for bilateral trade over a five- to seven- year period. In each case, improvement will occur only if American trade authorities adopt a view that Canada is in fact deserving of special treatment in light of the Agreement.

Much of the hoped for progress under the Agreement rests on the view that, in most cases, Canada has suffered from U.S. trade actions only incidentally to actions really directed at other trading partners. While that may be the case with respect to some eastern Canadian manufacturers, most of the actions affecting western producers have been specifically directed at Canada because, in the industry in question, Canada is or hopes to become the prime foreign supplier (e.g., softwood, potash, uranium, beef). Only over time will it become clear whether the Agreement does impose any meaningful restraint on U.S. trade actions in these industries. The fact that Canada has responded to the softwood and potash actions by implementing changes demanded by U.S. producers does not bode well for the future.

The one western industry that does appear to be a clear winner from the Agreement is the petroleum industry. The primary form its victory takes is stringent limitation on federal and, presumably, provincial powers to regulate pricing.

For agriculture the immediate consequences of the Agreement are relatively minor: the loss of two-priced wheat and exemption from U.S. beef import quotas. In the longer term, the impact on agriculture as for many other sectors of the Prairie economy will depend on the progress made by the Canada-United States Working Group in defining countervailable subsidies and dumping practices.

The key aim of the trade negotiations process from Canada's perspective was to win exemption from U.S. trade law. It failed to do so during the round just completed but the negotiations are to continue under the auspices of the Working Group created in the Agreement. In this process lie the main hopes and risks for the Prairie provinces.

The Working Group will address a wide variety of Canadian practices that are seen by U.S. producers as trade-distorting subsidies. It may also examine certain U.S. trade practices but, by virtue of the fact that international trade is far more important for most Canadian industries than for their American counterparts, most of the practices likely to be identified as "trade-distorting" will be on the Canadian side. In order to gain preferential access to the American market, Canada will have to agree to restraints on domestic policies far more onerous than those applied to other U.S. trading partners. This will involve serious restrictions on the capacity of federal and provincial governments in Canada to undertake or support industrial development. Such restraint would have far greater impact in the Prairie region, where provincial governments have been major players in most major industrial development projects over the past three decades.

The study outlined several sorts of potential gains from trade liberalization, including interindustry specialization, intraindustry specialization, economies of scale, lower costs for consumers and producers, and assured access to major foreign markets. On the whole, the study concluded that the potential gains from bilateral free trade will be considerably smaller in the 1980s and 1990s than they would have been in earlier decades. Major factors accounting for this include the gains already made through multilateral trade liberalization and unilateral tariff reduction on producer inputs, the decline of the United States as the world leader in the production of consumer and industrial goods, the reduced dependence of Prairie consumers and businesses on imports of manufactured goods from eastern Canada and the diversification of the Prairie economies, particularly through the growth of the public and private service sectors.

To the extent that bilateral free trade leads to increased competition for eastern manufacturers that more than offsets their expanded exports, currency depreciation will strengthen the competitive position of Prairie resource exporters and lead to increased specialization in those industries where Canada is a worldwide leader. Until quite recently, this effect has been viewed as the main source of gain for resource-producing regions from free trade. However, much attention is now focussed on the potential economies of scale that manufacturers may be able to achieve under bilateral free trade. This could lead to the diversion of resources away from the resource sector where Canada is competitive on a world scale to industries where Canadian firms are competitive only with their highly protected American counterparts. Such diversion would occur through the appreciation of the Canadian dollar. The likelihood of gains to resource-producing regions like the Prairies from interindustry specialization is thus uncertain at best.

Intraindustry specialization will occur primarily in eastern Canada, although certain western industries like petrochemicals would benefit from this trend. Intraindustry specialization will also tend to undercut the position of small manufacturers in the Prairie region who must produce a wide range of products to serve the small local market. Cost reductions associated with intraindustry specialization may be large enough to overcome the protection from larger manufacturing facilities enjoyed by local producers due to transport costs.

The potential for lower producer and consumer costs under bilateral free trade is limited. Over the past three decades, the Canadian government has taken measures to remove barriers that raise the cost of major industrial inputs like steel to Canadian producers. The erosion of the leadership position once enjoyed by the United States in the manufacturing of production machinery further limits the potential benefit to producers from bilateral trade liberalization. Similarly, the loss of the United States pre-eminence in the production of consumer goods, coupled with the trend toward the assembly of foreign-made components in the United States, has the effect of limiting the potential consumer benefit from bilateral free trade. Appendix A provides a discussion of the potential consumer benefit and arrives at a maximum estimate of approximately $70 per capita in one-time price reduction over the course of the ten-year tariff-reduction period. The potential saving from multilateral or unilateral tariff and quota removal would be far larger.

As noted above, the present bilateral Free Trade Agreement does little to provide increased assurance of access to the United States market to Prairie producers.

This study has examined a wide variety of evidence on the effects of bilateral free trade. Nevertheless, there are many studies that have been neglected. Rather than attempting an encyclopedic survey of existing work on the issue, the approach adopted here has been to examine in some detail selected studies that have been influential in the debate on free trade. An attempt was also made to present as broad a range of perspectives as possible. Some will find this approach disconcerting since it leaves the reader with no hard and fast conclusions as to how the Prairie economy can be expected to evolve in the presence of free trade.

Three main sorts of economic models have been presented: (1) a factor endowment-based general equilibrium model that focusses on Canada's existing strengths in international trade and predicts that the existing pattern of resource dependence will be intensified in the face of free trade; (2) an industrial organization-based general equilibrium model that focusses on Canada's existing weaknesses in international trade and predicts that with the removal of the trade barriers that are the source of that weakness, manufacturing industries will flourish in the face of free trade; and (3) a consumer-based general equilibrium model that focusses on the price shock effect of free trade and predicts a growth centered in the service sector to characterize the Canadian economy under free trade.

Figures 2, 3 and 4 present diagramatic representations of the causation that produces these diverse results.

There are clearly shortcomings with each of these sorts of models. The factor endowment model takes as given the existing pattern of resources in Canada, despite the fact that this pattern is clearly the result of a century of protection. The industrial organization model, in contrast, entirely ignores the existing resource base, both human and physical, despite the fact that this base is the product of much more than tariff barriers and does reflect, to a very substantial degree, the underlying strengths and weaknesses of the Canadian economy. The consumer-based model, unlike the other two, largely ignores the competitive effect of free trade on Canadian industries. Instead, it weaves an implausible story of very sizeable permanent effects arising from a relatively small, one-time price shock.

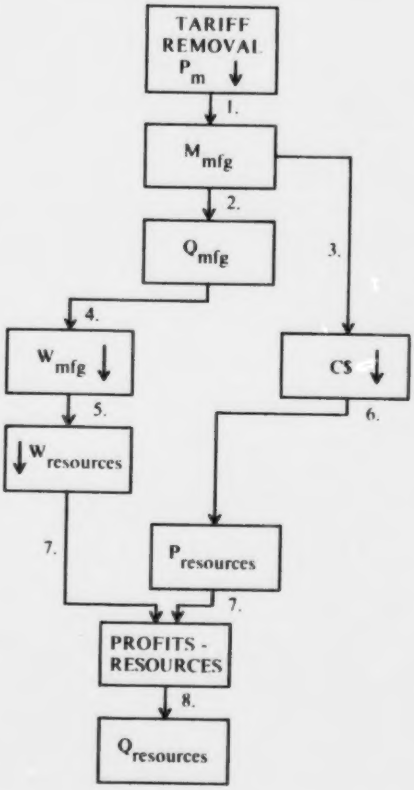
What then are we to make of this state of affairs?

The situation is not as dismal as it may appear. Each of these models does touch on key elements in the adjustment to freer trade.

Canada's trade patterns will continue to reflect its relatively abundant natural resource base. The removal of the protection enjoyed by many manufacturers in central Canada will not alter the fundamental evolution of the economy. It will however accelerate the trend away from broad-based production for domestic markets and toward specialized production for international markets, a trend that is already well under way. The gradual removal of tariff barriers will provide only a very limited benefit to the

FIGURE 2

Factor Endowment



Tariff removal reduces the price of imported goods (mainly manufactured goods) relative to their Canadian-made counterparts.

1. Imports of manufactured goods rise.
2. Production of domestically-produced manufactured goods falls.
3. Canadian dollar depreciates in response to expanded imports.
4. Wages in the manufacturing sector fall as output and employment decline.
5. Wages fall generally, including resource industries.
6. Depreciation of the Canadian dollar raises the C$ price of internationally-traded resources.
7. Profits in resource industries rise.
8. Output in resource producing regions rise, leading to higher incomes, employment and output in the resource-based region.

* Note: Critical to this model is the view that Canadian tariff removal increases the import of manufactured goods more than the removal of U.S. tariffs increases Canadian exports of manufactured goods. Canada's comparative advantage in resources rather than manufacturing produces this result.

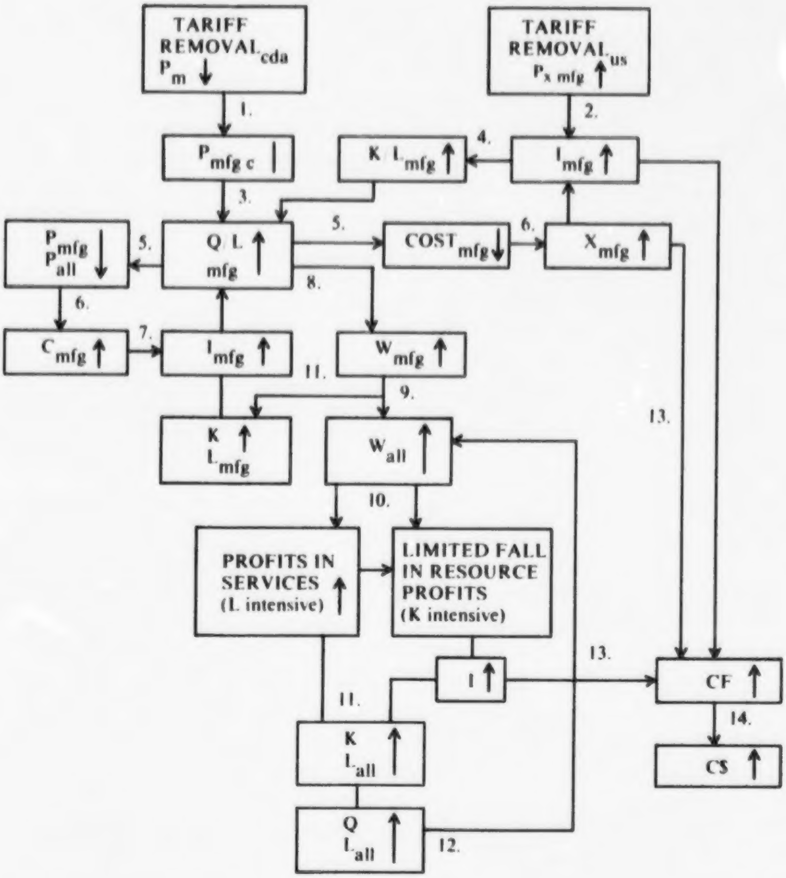
average consumer but the trend toward growth in service sector employment will continue for other reasons.

The exchange rate is the key variable in determining the pattern of trade in Canada and the resulting regional benefits and costs associated with free trade. In turn, international capital flows have in recent years often swamped the effects of changes in trade in goods and services in influencing short-term exchange rate movements. That is also likely to be the case in response to free trade.

In response to the Agreement, some firms will expand, some will restructure and some will close. The net long-run impact of free trade on real incomes in Canada will be small, whether positive or negative. In the short

FIGURE 3

Industrial Organization (Harris)


TARIFF REMOVAL cda
P m ↓
TARIFF REMOVAL us
P x mfg ↑
1.
2.
P mfg c ↓
K/L mfg ↑
4.
I mfg ↑
3.
5.
P mfg / P all ↓
5.
Q/L mfg ↑
COST mfg ↓
6.
X mfg ↑
8.
6.
C mfg ↑
7.
I mfg ↑
W mfg ↑
11.
9.
K/L mfg ↑
W all ↑
13.
10.
PROFITS IN SERVICES (L intensive) ↑
LIMITED FALL IN RESOURCE PROFITS (K intensive)
13.
I ↑
CF ↑
11.
14.
K/L all ↑
C$ ↑
Q/L all ↑
12.

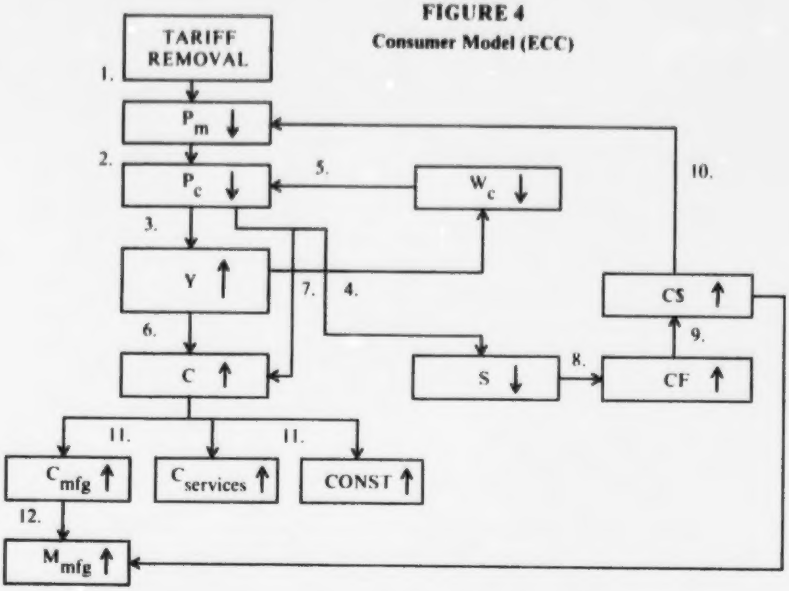
1. Tariff removal in Canada reduces prices of imported manufactured goods;
2. Tariff removal in U.S. raises price Canadian exporters of manufactures receive;
3. Less competitive, domestic-market oriented manufacturers contract in Canada, raising average productivity;
4. Investment in high productivity lines reinforced this gain;
5. Productivity gain makes manufactured goods more competitive both internationally and domestically relative to other goods;
6. Output of manufactured goods expands for both domestic and export markets;
7. Expanded output leads to increased investment;
8. Higher manufacturing productivity raises wages in that sector;
9. The competitive labour market ensures that all wages rise;

10. Profits in labour-intensive industries such as services fall relative to those of capital-intensive industries such as resources and manufacturing;
11. All firms tend to raise their capital/labour ratios in response to higher wages through investment;
12. This produces a further rise in productivity and still higher wages;
13. The high level of investment is financed in large measure through capital inflows;
14. Large capital inflows raise the value of the Canadian dollar.

*Note: This model depends on the capacity of the manufacturing sector to achieve very large economies of scale and to expand exports accordingly.

FIGURE 4

Consumer Model (ECC)



1. Tariff removal lowers the price of imports.
2. Canadian prices of import-competing goods fall to remain competitive.
3. Lower prices raise real incomes in Canada.
4. Higher real wages lead to lower nominal wage demands.
5. Lower Canadian wages produce still lower prices.
6. Higher real incomes result in more consumer spending.
7. Lower prices lead consumers to reduce saving.
8. Reduced saving increases the need for capital inflows.
9. Higher capital inflows raise the value of the Canadian dollar relative to other currencies.
10. A higher dollar produces another round of price cuts and real income gains.
11. Higher consumption is spread across goods, services and construction.
12. Since manufactured goods can be imported and it is assumed there is no trade in services and construction, the main benefits of free trade are concentrated in the latter two sectors.

*Note: This model depends on (1) the lack of direct import competition; (2) a price-shock not reflected immediately in wages; (3) a service sector insulated from international trade.

run, however, the accelerated pace of change is bound to have more significant effects: increased investment in Canada and a substantial measure of dislocation for workers. This expected increase in investment, and the ensuing near-term appreciation of the Canadian dollar, ought not to be taken as evidence of long-term net benefits to central Canada from the Free Trade Agreement. It is simply the mechanism whereby business bids resources away from exports and domestic consumption in order to respond to the need for changes in production facilities.

In sum then, the economic benefits for the Prairie region from the recently negotiated Canada-United States Free Trade Agreement are small. However, so too are the costs. In the coming Working Group negotiations the stakes are higher. Secure access to the United States market would benefit a number of Prairie industries. At the same time, the risks associated with the erosion of the provincial and federal governments' capacity to support economic and social development are great.

APPENDIX A

Estimating the Consumer Benefit From Bilateral Free Trade

A.1 Assumptions

1. Assume that the price of imports from the United States would fall by the full amount of the existing bilateral tariff.

   Notes:

   This will tend to overestimate the benefit since many goods imported from the United States into Canada are priced to meet the price of Canadian- or foreign-produced goods (i.e., the world price plus the tariff applied to third countries). To the extent that this continues to be the case, the benefit of tariff removal will accrue to the U.S. producer, rather than the Canadian consumer and, in addition, the Canadian taxpayer will have to make up the lost tariff revenue through tax increases.

2. Assume that in industries where imports from the United States account for 10 percent or more of Canadian consumption, all prices fall by the amount of the bilateral tariff removed. That is, in all such industries, the calculated post-BFT U.S. price (i.e., the Canadian price less the bilateral tariff) determines the price for all goods in the Canadian market. This requires that either U.S. goods replace goods from Canada and third countries or that Canadian and third-country producers cut prices to match the calculated U.S. price.

   Notes:

   This overestimates the potential consumer gain. As noted above the U.S. producer may not cut his/her price by the full amount of the tariff.

   In many cases where the U.S. producer currently accounts for 10 percent of the market, that is too small a proportion to effectively determine the market price for all goods within the relatively broad categories used. That is, the goods may not be substitutes (e.g., a cut in the tariff on tableware may affect the price of only higher quality goods. It is unlikely to lead to a reduction of lower priced goods that are not substitutes). Once again, the impact of tariff removal on consumer prices is overestimated.

   Where there is effective intraindustry specialization, one would expect no direct import-competing price effect on Canadian-produced goods.

3. Assume all goods imported from the United States into Canada are wholly produced in the United States.

   Notes:

   This overestimates the potential consumer gain. An increasing proportion of goods sold from the United States are in fact products of other countries, sometimes packaged or assembled in the United States. These goods would not be eligible for duty-free entry under the BFT Agreement and therefore would not provide consumer price gains. (For example, 35 percent of Canada's imports of televisions, VCRs and radios come from the United States. Yet only a very small proportion of these are actually manufactured in the United States.)

4. Assume that the removal of American protection does not result in higher prices for Canadian-produced goods.

   Notes:

   Again, this is a generous assumption. We know that for many Canadian products, Canada is a price-taker. In the presence of protection, the Canadian price is thus the U.S. price less the United States tariff. The removal of U.S. protection will thus raise Canadian prices (e.g., the 15 percent export tax imposed on Canadian softwood effectively reduced the domestic price by close to 15 percent. Its removal under free trade would raise domestic prices accordingly).

5. Assume that the Free Trade Agreement does not lead to higher prices in Canada for automobiles.

   Notes:

   BFT will raise Canadian auto prices in two ways:

   Canadian auto prices are currently below those in the United States. Over ten years, the Agreement will ease crossborder trade and tend to equalize prices in the two countries at a level close to the higher U.S. price.

   The Agreement will limit the access of third-country producers to the North American market, thus reducing competition and raising prices.

6. Assume that the Canadian government does not raise indirect taxes to recoup lost tariff revenue.

A.2 Methodology

1. Determine consumer expenditure on specific items from Statistics Canada Survey of Consumer Expenditures [Column 1].
2. Determine the share of imports from the United States in total consumption [Column 5 = Column 3 × Column 4].
3. Calculate Direct Tariff Saving [Column 6 = Column 5 × Column 1].
4. Where U.S. imports account for more than 10 percent of Canadian consumption [Column>5 10.0], determine import-competing price effect [Column 7] by multiplying entire Canadian consumption [Column 1] by the weighted bilateral tariff [Column 2] and subtracting the already counted direct tariff effect [Column 6].
5. Adjust the saving to reflect commodity-specific factors such as goods that are exempted from the Agreement [Column 9]. See notes below for an explanation of these adjustments.
6. Calculate maximum total consumer benefit as sum of adjusted benefits.

A.3 Adjustments

1. Coffee and tea are not produced in the United States. Therefore, the imports from the U.S. must represent transshipments which are not covered by BFT. Therefore remove this apparent saving.

2. Dairy products, eggs and poultry are exempted from the Agreement. Therefore no import-competing price effect has been allowed for these commodities. It is assumed, however, that the existing imports of these commodities from the U.S. will be reduced by the current tariff level. This is probably excessively generous but the amounts involved are small.

3. Other food products is a diverse category. It is not reasonable to assume that the price of all the goods in this category will come down with BFT. Therefore, the import-competing effect has been arbitrarily halved.

4. Since the cost of meals in restaurants is largely payment for service which will not be affected by BFT, it is assumed that the cost saving on this item is one-half the proportional adjusted saving on food from stores.

5. Zenith is the only company still making television sets in the United States. No VCRs are made there. Goods imported from the United States here are clearly transshipped and do not provide consumer gain. The price of these goods in both the United States and Canada is clearly set by the world price plus each country's third-country tariff. Therefore remove both the import-competing price effect and the direct tariff saving. To the extent that these goods are produced in the United States (i.e., Zenith), the removal of the tariff will provide a gain to the producer, not to the Canadian consumer.

6. With sound equipment, U.S.-produced products represent a small part of the market. The price is determined primarily by the third-country price plus the Canadian tariff. The removal of the Canada-U.S. tariff will not have any significant impact on goods imported from third countries. It will also likely not affect prices to the consumer of goods produced in the United States and Canada. Nevertheless, to be generous, assume the price of goods from both Canada and the United States come down by the full amount of the tariff but the price of third-country goods does not change.

7. Since printing and publishing are largely exempt, eliminate import-competing price effect here.

8. Beer is exempt. Price of alcohol is largely tax.

9. Reduce benefit by 20 percent to reflect retail mark-up and handling component of consumer prices. This procedure was also followed in the Consumer and Corporate Affairs calculation of consumer benefit.

CALCULATION OF CONSUMER GAIN FROM BFT ($1984)

	1	2	3	4	5	6	7	8	9	
PRODUCT	Consumer Exp/Capita	Cdn. Bilateral Tariff Rate	Imports Consump.	U.S. Imports/ Total Imports	U.S. Imports/ Consumption	Direct Tariff Saving	Import-Competing Price Effect	Total Saving	Adjust	Notes
FOOD PURCHASED IN STORES										
Meat	$ 679.00	1.70	7.5	49.8	3.74	$ 0.43	$ 0.00	$ 0.43		
Fish	$ 64.00	1.81	7.5	49.8	3.74	$ 0.04	$ 0.00	$ 0.04		
Dairy Products	$ 387.00	5.58	2.2	31.2	0.69	$ 0.14	$ 0.00	$ 0.14		(2)
Eggs	$ 43.00	0.81	2.2	31.2	0.69	$ 0.00	$ 0.00	$ 0.00		
Bakery Products	$ 298.00	7.95	5.4	33.0	1.78	$ 0.42	$ 0.00	$ 0.42		
Fruit	$ 245.00	6.18	32.7	64.0	20.93	$ 3.17	$11.97	$15.14		
Vegetables	$ 219.00	6.18	32.7	64.0	20.93	$ 2.83	$10.70	$13.53		
Sugar & Syrup	$ 22.00	3.75	86.0	21.6	18.58	$ 0.15	$ 0.67	$ 0.83		
Coffee & Tea	$ 64.00	4.84	80.0	18.5	14.80	$ 0.46	$ 2.64	$ 3.10	($3.10)	(1)
Other Food Products	$ 272.00	4.84	35.1	60.1	21.10	$ 2.78	$10.39	$13.16	($5.19)	(3)
Beverages (non-alc.)	$ 78.00	7.68	25.2	8.0	2.02	$ 0.12	$ 0.00	$ 0.12		
FOOD FROM RESTAURANTS	$ 670.00					$ 2.86	$ 8.10	$10.96	($5.48)	(4)
Assume Proportional To Food From Stores										
CLOTHING	$1,035.00	16.53	13.0	10.2	1.33	$ 2.27	$ 0.00	$ 2.27		
FOOTWEAR	$ 150.00	11.64	38.5	6.7	2.58	$ 0.45	$ 0.00	$ 0.45		
APPLIANCES										
Refrigerators & A/C	$ 34.00	5.57	86.0	66.4	57.10	$ 1.08	$ 0.81	$ 1.89		
Cooking, Laundry, etc.	$ 102.00	7.37	36.0	10.8	3.89	$ 0.29	$ 0.00	$ 0.29		
TV, VCR, Radio	$ 75.00	7.37	76.0	35.0	26.60	$ 1.47	$ 4.06	$ 5.53	($5.53)	(5)
Sound Equipment	$ 43.00	7.37	52.5	35.0	18.38	$ 0.58	$ 2.59	$ 3.17	($1.07)	(6)

Tapes & Records	$ 45.00	7.37	52.5	35.0	18.38	$ 0.61	$ 2.71	$ 3.32
Furniture	$ 312.00	13.46	14.2	56.0	7.95	$ 3.34	$ 0.00	$ 3.34
Bedding & Drapes	$ 91.00	20.79	22.0	38.0	8.36	$ 1.58	$ 0.00	$ 1.58
SHELTER								
Owned Accom.	$ 891.00	0.00	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
Rented Accom.	$ 776.00	0.00	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
Travel Accom.	$ 102.00	0.00	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
UTILITIES	$ 376.00	0.00	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
COMMUNICATIONS	$ 150.00	0.00	0.0	0.0	0.00			
CHILD CARE	$ 55.00	0.00	0.0	0.0	0.00			
PET CARE								
Food	$ 32.00	1.70	7.5	49.8	3.74	$ 0.02	$ 0.00	$ 0.02
Veterinary, etc.	$ 12.00	0.00	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
HOUSEHOLD SUPPLIES								
Paper, Plastic & Foil	$ 141.00	7.34	22.0	18.1	3.98	$ 0.41	$ 0.00	$ 0.41
Tableware	$ 27.00	6.84	97.0	25.7	24.93	$ 0.46	$ 1.39	$ 1.85
TOOLS & OTHER HOUSEHOLD SUPPLIES	$ 73.00	5.57	61.6	37.0	22.79	$ 0.93	$ 3.14	$ 4.07
AUTOMOBILES	$ 469.00	0	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
Autos from U.S.	Currently Tariff Free Used Autos, No Net Gain				0.00	$ 0.00	$ 0.00	$ 0.00
Gasoline	$ 421.00	0	6.6	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
Tires	$ 34.00	9.24	25.8	82.5	21.29	$ 0.67	$ 2.47	$ 3.14
Batteries	$ 6.00	0.44	84.1	82.5	69.38	$ 0.02	$ 0.01	$ 0.03
Other Auto Parts	$ 29.00	0.66	84.1	82.5	69.38	$ 0.13	$ 0.06	$ 0.19
Maintenance	$ 113.00	0.00	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
Insurance	$ 180.00	0.00	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
PUBLIC TRANSPORT	$ 131.00	0.00	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00
HEALTH CARE	$ 76.00	0.00	0.0	0.0	0.00	$ 0.00	$ 0.00	$ 0.00

HEALTH & PERSONAL CARE SUPPLIES	$ 280.00	4.96	87.0	35.2	30.62	$ 4.25	$ 9.63	$13.89		
SPORTS EQUIP.	$ 33.00	10.33	41.4	39.5	16.35	$ 0.56	$ 2.85	$ 3.41		
TOYS & GAMES	$ 49.00	10.33	30.4	29.7	9.03	$ 0.46	$ 0.00	$ 0.46		
READING MATERIAL	$ 84.00	2.18	22.2	95.3	21.16	$ 0.39	$ 1.44	$ 1.83	($1.44)	(7)
TOBACCO	$ 93.00	17.15	1.5	64.7	0.97	$ 0.15	$ 0.00	$ 0.15		
ALCOHOL	$ 131.00	4.23	5.1	6.9	0.35	$ 0.02	$ 0.00	$ 0.02		
TOTAL	$9,684.00					$33.56	$75.63	$109.19	($21.81)	(8)
							GROSS SAVING		$87.38	
							LESS MARKUP		$17.48	(9)
							NET SAVING		$69.90	

BIBLIOGRAPHY

Agriculture Canada, Internal Programs Branch, International Trade Policy Division. 1985. "Internal Report on Agriculture and Bilateral Trade Negotiations." Ottawa.

Alberta Agriculture. 1985. "Second Century: Opportunities for Agriculture: A Conference for the Total Agricultural Sector." Edmonton.

Alliance of Canadian Cinema, Television and Radio Artists (ACTRA). 1986. Actra Brief to the Saskatchewan Trade Negotiations Secretariat.

Association of Consulting Engineers of Saskatchewan (ACES). 1986. "Comprehensive Trade Agreement" (letter to Hon. Bob Andrew, Sask. Minister of Economic Development and Trade).

Association of Canadian Publishers. 1983. "Canadian Ownership for Educational Publishing" (submission to the Special Committee to Study the Relationship of Government to the Arts in Ontario). Toronto.

Auer, L. 1979. *Regional Disparities in Productivity and Growth.* Ottawa: Economic Council of Canada.

Baldwin, John R. and Paul K. Gorecki. 1983a. "Trade, Tariffs and Relative Plant Scale in Canadian Manufacturing Industries, 1970-1979." Economic Council of Canada, Discussion Paper 232.

Baldwin, John R. and Paul K. Gorecki. 1983b. "The Relationship Between Plant Scale and Product Diversity in Manufacturing Industries." Economic Council of Canada, Discussion Paper 237.

Baldwin, John R. and Paul K. Gorecki. 1983c. "Trade, Tariffs Product Diversity and Length of Production Run in Canadian Manufacturing Industries, 1970-1979." Economic Council of Canada, Discussion Paper 247.

Baldwin, John R. and Paul K. Gorecki. 1985. "The Relationship Between Trade and Tariff Patterns and the Efficiency of the Canadian Manufacturing Sector in the 1970s: A Summary" in Whalley, ed., *Canada-United States Free Trade.* Royal Commission on the Economic Union and Development Prospects for Canada, Research Study #11, Toronto, 179-99.

Baldwin, John R. and Paul K. Gorecki. 1986. *The Role of Scale in Canada - U.S. Productivity Differences in the Manufacturing Sector.* Toronto: University of Toronto Press.

Baranson, Jack. 1986. "What Happens to the Branch Plants?" in D. Cameron, ed., *The Free Trade Papers,* 112-20.

Barber, Clarence. 1985. "Manitoba's Interest In and Attitudes Towards a Proposed Canada-United States Free Trade Area." Winnipeg: Manitoba Department of Industry, Trade and Technology.

Barichello, Richard R. and T.K. Warley. 1986. "Agriculture and Negotiation of a Free-Trade Area: Issues in Policy Harmonization" in R.G. Lipsey and M.G. Smith, eds., *Policy Harmonization: The Effects of a Canadian-American Free Trade Area*. Toronto: C.D. Howe Institute.

Baumann, Harry. 1976. "Structural Characteristics of Canada's Pattern of Trade." *Canadian Journal of Economics* 9, no. 3.

Beeson, Patricia E. and Michael F. Bryan. 1986. "The Emerging Service Sector." Cleveland: Federal Reserve Bank of Cleveland *Economic Commentary* (June).

Belanger, Jean M. 1986. "Canada-U.S. Free Trade: The Chemical Industry Perspective," address to 35th Canadian Chemical Engineering Conference, April 17, 1986.

Bennett, W.R. 1986. "Provincial Participation in the Canada-U.S. Trade Negotiations." Western Premiers Conference, Swan River, Manitoba, May 29-30, 1986.

Bennindyk, Robert. 1985. "The Reality of Freer Trade With the United States." Alberta Agriculture.

Boadway, Robin and John Treddenick. 1978. "A General Equilibrium Computation of the Effects of the Canadian Tariff Structure." *Canadian Journal of Economics* 11, no. 3: 424-26.

Branson, William H. and Nikolaos Monoyios. 1977. "Factor Inputs in U.S.Trade." *Journal of International Economics* 7: 111-31.

Brean, Donald J.S. 1986. "Fiscal Policy Harmonization and Negotiation of a Free-Trade Area" in Lipsey and Smith, eds., *Policy Harmonization: The Effects of a Canadian-American Free Trade Area*. C.D. Howe Institute, 43-71.

Brewers Association of Canada. 1985. "Perspectives on Canada-United States Free Trade" (submitted to Hon. James Kelleher, Minister of International Trade in response to "How to Secure and Enhance Canada's Access to Export Markets").

Brown, Drusilla K. and Robert M. Stern. 1987. "Evaluating the Effects of U.S.-Canadian Free Trade: What Do the Multisector Trade Models Suggest?" in Stern, Trezise and Whalley, eds., *Perspectives on U.S.-Canada Free Trade*. New York: Brookings Dialogues on Public Policy.

Bruce, C.J. and W.A. Kerr. 1985. "A Proposed Arbitration Mechanism to Ensure Free Trade Between Canada and the United States in Livestock and Meat Products." Calgary: University of Calgary Economics Department Discussion Paper No. 92.

Bryan, Richard. 1986. "Implications for the Forest Products Industry" in Peitchinis, ed., *Free Trade with the U.S.: Implications for Alberta and Canada*, 24-35.

Burgess, David F. 1980. "Protection, Real Wages, Real Income, and Foreign Ownership." *Canadian Journal of Economics* 13, no. 4: 594-614.

Butlin, M.W. 1983. "Protection, Real Wages, Real Income, and Foreign Ownership: A Comment." *Canadian Journal of Economics* 16, no. 2: 350-55.

Cameron, Duncan, ed. 1986. *The Free Trade Papers*. Toronto: James Lorimer & Co.

Cameron, N.E., J.M. Dean and W.S. Good. 1984. "The Manufacturing Sector in Manitoba." Economic Council of Canada Discussion Paper No. 254.

Canada, Department of External Affairs. 1985. "Competitiveness and Security — Directions for Canada's International Relations" (Green Paper).

Canada, Department of External Affairs. 1985. "How to Secure and Enhance Canadian Access to Export Markets."

Canada, Department of External Affairs. 1985. "Canadian Trade Negotiations: Introduction, Selected Documents, Further Reading."

Canada, Department of External Affairs. 1985. "Interim Report on the Economic Implications of a Canada/U.S. Enhanced Trade Agreement."

Canada, Department of Regional Economic Expansion. 1986. "Commodity Trade by Industrial Sector with the United States — Historical Summary, 1966-1985."

Canada. 1987. *Canada-U.S. Free Trade Agreement*. Ottawa: External Affairs Canada.

Canada. 1987. *Canada-U.S. Free Trade Agreement: Preliminary Transcript*. Ottawa: External Affairs Canada.

Canada West Foundation. 1985. "International Trade: Problems and Prospects." *CWF, Western Perspectives*, 19-23.

Canada West Foundation. 1986a. "Free Trade and Western Canadian Industries" (presentation to the Saskatchewan Trade Commission, August, 1986).

Canada West Foundation. 1986b. "Putting the Cards on the Table. . .Free Trade and Western Canadian Industries."

Canadian Agricultural Chemical Producers' Association. 1983. "Submission to the Royal Commission on the Economic Union and Development Prospects for Canada."

Canadian Association of Management Consultants. n.d. "Toward Freer International Trade in the Services of Management Consulting Firms" (submission to the Government of Canada on the Occasion of Negotiations for Freer Trade with the United States).

Canadian Bankers Association. 1986. "Response to the Ontario Task Force on Financial Institutions, Final Report, May, 1986."

Canadian Bankers Association. 1986. "Memorandum re Bank Statements on Trade, July 9, 1986."

Canadian Egg Marketing Agency. n.d. "Position on the Issue of Free Trade."

Canadian Federation of Independent Business. 1986. "Independent Business and Freer Trade: The Views of CFIB Members on the Overall Result on their Business of a Canada-United States Agreement to Lower Trade Barriers [Part I — National Analysis, Part II — Provincial Analysis]."

Canadian Independent Computer Services Association. n.d. "Will Canadian Data be Processed in Canada?"

Canadian Independent Computer Services Association. 1984. "Indications of Canadian Job Losses Through Trans-Border Data Processing."

Canadian Labour Congress. 1986. "Our Canada or Theirs: Workers Confront the Corporate Blueprint: 1986 Statement on Free Trade, Deregulation and Privatization" (document #19, 16th Constitutional Convention, April 28-May 2, 1986).

Canadian Labour Congress. 1986. "Submission to the Hearings of the Economic Stabilization Sub-Committee of the House Banking Committee on Costs and Benefits of Free Trade," July 31, 1986.

Canadian Manufacturers Association, Saskatchewan Branch. 1986. "Submission to the Saskatchewan Government on Trade, August 26, 1986."

Canadian Meat Council. 1984. "Submission to the U.S. International Trade Commission Respecting Canadian Pork and Swine Trade with the United States of America," September 4, 1984.

Canadian Meat Council. 1986. "Freer Meat and Livestock Trade with the U.S.A. from the Perspective of the Canadian Meat Council" (policy statement, February 6, 1986).

Canadian Paperworkers Union. 1986. "Presentation to the Trade Negotiation Secretariat, Province of Saskatchewan, on the Subject of Free Trade, August 5, 1986."

Canadian Periodical Publishers Association. 1985. "Brief Presented to Howard Pawley."

Canadian Union of Public Employees, Saskatchewan Division. 1986. "The Dangers of Free Trade" (brief to Saskatchewan Consultations on Freer Trade, August, 1986).

Canadian Union of Public Employees, University Employees Union, Local 1975. 1986. "Brief for the Provincial Government's 'Public Consultations on Trade Negotiation'."

Canadian Union of Public Employees, Saskatoon Community Health Clinic, Local 974. 1986. "Brief Presented to Free Trade Enquiry."

Canadian Western Agribition. 1986. "Brief to the Special Trade Commissioners Appointed to Advise the Government of Saskatchewan Upon Free Trade Negotiations, August, 1986."

Carter, C.A., R.G. Chambers, A.F. McCalla and G. Storey. 1984. "Task Force Report on: Canadian/U.S. Trade Relations: Issues and Policy Options." Presented to Trade Research Consortium, Wye Plantation, August 1-4.

Caves, Richard E. 1982. *Multinational Enterprise and Economic Analysis*. Cambridge: Cambridge University Press.

Caves, R., M. Porter, A.M. Spence and J. Scott. 1980. *Competition in the Open Economy, A Model Applied to Canada*. Cambridge: Harvard University Press.

Chacholiades, Miltiades. 1978. *International Trade Theory and Policy*. New York: McGraw Hill.

Citizens Concerned About Free Trade. "A Brief to Public Consultations on Trade Negotiations" (Saskatchewan Trade Hearings, Regina, July 22, 1986).

Clarkson, Stephen. 1982. *Canada and the Reagan Challenge*. Toronto: Canadian Institute for Economic Policy.

Communications and Electrical Workers, CLC. 1986. "Submission on Free Trade to the Trade Negotiations Secretariat, Government of Saskatchewan, July, 1986."

Conference Board of Canada. 1978. "Canada's Manufacturing Sector: Performance in the 1970s" (Study 51).

Conference Board of Canada. 1982. "Canada's International Trade Performance: A Survey of Recent Trends" (Executive Bulletin 23).

Conference Board of Canada. 1984. "Canada-United States Trade Relations: The Lessons of the Softwood Countervail Case" (Executive Bulletin 27).

Conference Board of Canada. 1985. "Canada-United States Trade Relations: Toward a Bilateral Trade Agreement" (Executive Bulletin 31).

Conklin, David W. and Thomas J. Courchene, eds. 1985. *Canadian Trade at a Crossroads: Options for New International Agreements*. Toronto: Ontario Economic Council.

Consumers Association of Canada, Saskatchewan. 1986. "Submission of the Consumers Association of Canada, Saskatchewan" (presented to the Special Trade Commission Appointed by the Government of Saskatchewan to Address Issues Relating to Canada-U.S. Trade Talks, August 6, 1986).

Cordell, Arthur J. 1985. "The Uneasy Eighties: The Transition to an Information Society" (Science Council of Canada, Background Study 53).

Council of Canadians, Saskatchewan Chapter. 1986. "Submission to Commission on Canada-U.S. Free Trade Talks" (Hearings, Regina, July 24, 1986).

Cox, David and Richard Harris. 1985. "Trade Liberalization and Industrial Organization: Some Estimates for Canada." *Journal of Political Economy* 93 (February): 115-45.

Curran, Alex. 1986. "Submission to Trade Commissioners" (Saskatchewan Trade Hearings, July 17, 1986).

Dairy Producers Co-operative Limited. 1986. "Brief" (Saskatchewan Trade Consultations, August, 1986).

Daly, D.J. 1985. "Rationalization and Specialization in Canadian Manufacturing" in D. McFetridge, ed., *Canadian Industry in Transition*, Research Study Vol. 2, Royal Commission on the Economic Union and Development Prospects.

Dasko, Donna. 1986. "Canadian Public Opinion: Sources of Support and Dissent" in D. Cameron, ed., *The Free Trade Papers*, 26-32.

Dauphin, Roma. 1978. *The Impact of Free Trade in Canada*. Ottawa: Economic Council of Canada.

Davies, J.K. 1986. Submission to Saskatchewan Trade Secretariat on behalf of Land M Wood Products, July 18, 1986.

Deloitte, Haskins & Sells Associates, Agricultural Consultants. 1985. "Canadian Agricultural Trade Issues, Volume I: Free Trade with the U.S.A., Executive Summary and Conclusions."

Drew, Jack. 1986. "Issues in Agricultural Policy" (talk at the University of Saskatchewan, January 20, 1986).

Drummond, I.M. 1986. "On Disbelieving the Commissioners' Free-Trade Case." *Canadian Public Policy* 12.

Dungan, Peter. 1985. "The Macroeconomic Impacts of Free Trade with the United States: Lessons from the Focus-Prism Models." University of Toronto Department of Economics/Institute for Policy Analysis, Working Paper DP 85-6.

Eastman, H.C. and S. Stykolt. 1967. *The Tariff and Competition in Canada*. Toronto: Macmillan.

Economic Council of Canada. 1975. *Looking Outward: A New Trade Strategy for Canada*. Ottawa: Queen's Printer.

Economic Council of Canada. 1984. *Western Transition*. Ottawa: Queen's Printer.

Family Farm Foundation. 1986. "Brief on Free Trade" (presented to Saskatchewan Trade Consultations, August 27, 1986).

Farrell, Kenneth R. 1984. "U.S. Agricultural Policy and Trade: 1985 Farm Bill, Longer Term Policies and Trade Implications" in George Lee, ed., *Future Prospects for World Agricultural Policies and Trade: Implications for Western Canada*, 44-57.

Federal Reserve Bank of Kansas City. 1985. "Competing in the World Marketplace: The Challenge for American Agriculture." Symposium sponsored by the Federal Reserve Board of Kansas City, Kansas City, Missouri, October 31-November 1, 1985.

Feick, John E. 1986. "Implications for the Petrochemical Industry," in Stephen Peitchinis, ed., *Free Trade with the U.S.: Implications for Alberta and Canada*. Calgary: Proceedings of a conference organized by the Economic Society of Calgary and the Calgary Chamber of Commerce, 2-12.

Flexi-Coil Ltd. 1986. "The Position of Flexi-Coil on Free Trade" (presented to Saskatchewan Trade Consultations, August 21, 1986).

Forbes, J.D., R.D. Hughes and T.K. Warley. 1982. *Economic Intervention and Regulation in Canadian Agriculture*. Ottawa: Economic Council of Canada and the Institute for Research on Public Policy.

Fretz, D., R. Stern and J. Whalley, eds. 1985. *Canada/United States Free Trade and Investment Issues*. Toronto: Ontario Economic Council.

Fuss, Melvyn and Vinod Gupta. 1981. "A Cost Function Approach to the Estimation of Minimum Efficient Scale, Returns to Scale and Suboptimal Capacity." *European Economic Review* 15: 123-55.

Giersch, H., ed. 1979. *On the Economics of Intra-Industry Trade: Symposium 1978*. Tubrigen: Paul Siebeck.

Gillis, K.G., C.D. White, S.M. Ulmer, W.A. Kerr and A.S. Kwaczek. 1985. "The Prospects for the Export of Primal Beef Cuts to California." *Canadian Journal of Agricultural Economics* 33, no. 2.

Globerman, Steven. 1986. "Potential Implications of Canadian-U.S. Trade Negotiations for Canadian Cultural Support Policies."

Godwin, Hal W. 1986. "Perspectives of the Petroleum Services Association of Canada" in S. Peitchinis, ed., *Free Trade with the U.S.: Implications for Alberta and Canada*, 20-22.

Groenewegen, John. 1986. "Exchange Rates and the Canadian Grain Sector." Ottawa: Agriculture Canada Working Paper 1/86.

Gudmundson, Fred. 1986. "Free Trade, The Real Agenda." *Canadian Dimension* 20, no. 5 (Sept./Oct.).

Gwyn, Richard. 1986. *The 49th Paradox, Canada in North America*. Toronto: McClelland and Stewart.

Haack, R.L., et al. 1981. *The Splintered Market: Barriers to Interprovincial Trade in Canadian Agriculture*. Toronto: James Lorimer & Company.

Haley, Stephen L. and Barry Krissoff. 1986. "The Value of the Dollar and Competitiveness of U.S. Wheat Exports." U.S.D.A., Economic Research Service, International Economics Division.

Harris, Richard G. 1984. "Applied General Equilibrium Analysis of Small Open Economies with Scale Economies and Imperfect Competition." *American Economic Review* 74 (December): 1016-32.

Harris, Richard G. 1986. "Beyond Comparative Advantage: The Paradigm Problem" in D. Cameron, ed., *The Free Trade Papers*, 97-106.

Harris, Richard G. with David Cox. 1984. *Trade, Industrial Policy and Canadian Manufacturing*. Toronto: Ontario Economic Council Research Study.

Harris, Richard G. with David Cox. 1985. "Trade Liberalization and Industrial Organization." *Journal of Political Economy* 93, no. 1.

Hart, Michael M. 1985. *Some Thoughts on Canada-United States Sector Free Trade*. Montreal: Institute for Research on Public Policy.

Hassan, Zuhair A. and H. Bruce Huff, eds. 1985. *Agricultural Sector Models for Policy Analysis*. Ottawa: Agriculture Canada.

Hatfield, S. Scott. 1985. "Influencing Canada's Public Policy." *Canadian Business Review* (Winter): 8-13.

Hazeldine, T. and I. Wigington. 1987. "Canada Auto Policy." *Canadian Public Policy* 13, no. 4 (December).

Hedley, Douglas D. and John Groenwegen. 1984. "Canadian Agricultural Policy and Trade" in George Lee, ed., *Future Prospects for World Agricultural Policies and Trade: Implications for Western Canada*, 90-110.

Helleiner, G.K. 1979. "Transnational Corporations and Trade Structure: The Role of Intra-Firm Trade" in H. Geirsch, ed., *On the Economics of Intra-Industry Trade*. Tubrigen: Paul Siebeck.

Helpman, E. 1984. "Increasing Returns, Imperfect Markets and Trade Theory" in R.W. Jones and P.B. Kenen, eds., *Handbook of International Economics*. Amsterdam: North Holland, 325-65.

Helpman, E. and Paul Krugman. 1985. *Market Structure and Foreign Trade: Increasing Returns, Imperfect Competition, and the International Economy*. Cambridge: MIT Press.

Hodgman, G. 1986. "Regarding the Export and Import of Veterinary Biologics" (presented to the Saskatchewan Trade Consultations, August 19, 1986).

Howe, Dallas. 1986. "Presentation to Government of Saskatchewan Public Consultations on Trade Negotiations, August 19, 1986."

IBM Canada Ltd. 1985. "The Information Industry and Canada's Trade."

INFORMETRICA Ltd. 1985. "Economic Impacts of Enhanced Bilateral Trade: National and Provincial Results" (study commissioned for the Department of External Affairs, August 20, 1985).

INFORMETRICA Ltd. 1985. "Issues and Measurements of Free Trade Impacts." *Monthly Economic Review* 4, no. 11 (November): 1-11.

INFORMETRICA Ltd. 1986. "Impacts of Unilateral Canadian Protectionism." *Monthly Economic Review* 5, no. 11 (November): 1-11.

Insurance Agents' Association of Saskatchewan. 1986. "A Submission for the Trade Negotiation Secretariat, Province of Saskatchewan."

Intercontinental Packers. 1986. "Intercontinental Packers Brief on Free Trade Issues and Covering Letter."

IPSCO Inc. 1986. "Submission to the Board of Special Trade Commissioners of Saskatchewan in Regard to Bilateral Trade Negotiations with the United States of America, July 25, 1986."

Jackson, J.H. 1985. "Fair or Unfair Practices in International Trade." University of Michigan Department of Economics.

Jansen, Gordon W.V. 1985. "The U.S.-Israel Free Trade Agreement: A Model for Canada?" *Canadian Business Review* (Autumn): 24-27.

Jones, Rick, John Whalley and Randall Wigle. 1985. "Regional Impacts of Tariffs in Canada: Preliminary Results from a Small Dimensional Numerical General Equilibrium Model" in John Pigott and John Whalley, eds., *New Developments in Applied General Equilibrium Analysis*. London: Cambridge University Press.

Jones, R.W. and P.B. Kenen, eds. 1984. *Handbook of International Economics, Vol. 1*. Amsterdam: North Holland.

Kendon, Richard P., Susan E. Cullen and William A. Kerr. 1986. "Ensuring Expanded Markets for Western Canadian Petrochemicals Within a Canada-U.S. Free Trade Agreement." *Western Economic Review* 5, no. 1 (Spring): 3-14.

Kerr, W.A. 1986. "A Trade Strategy for Western Canadian Livestock Producers" in S. Peitchinis, ed., *Free Trade with the U.S.: Implications for Alberta and Canada*, 45-62.

Kerr, W.A. and Susan Cullen. 1985. "Canada-U.S. Free Trade — Implications for the Western Canadian Livestock Industry." *Western Economic Review* 4, no. 3.

Kerr, W.A., Susan Cullen and Margot F. Sommerville. 1986. "Trade Barriers and the Western Canadian Livestock Industry." Agriculture Canada Working Paper 11/86, June, 1986.

Kerr, W.A. and David J. Reay. 1986. "The Western Canadian Grains Sector Within a Negotiated Trade Agreement With the United States." *Western Economic Review* 5, no. 1 (Spring): 30-42.

Kerr, W.A. and S.M. Ulmer. 1984. "The Importance of the Livestock and Meat Processing Industries to Western Growth." Economic Council of Canada Discussion Paper No. 225.

Kwaczek, Adrienne S., Michael Asgar-Deen and William A. Kerr. 1986. "Electricity: Issues in Free Trade." *Western Economic Review* 5, no. 1 (Spring).

Lattimore, R.G. 1982. "Canadian Agricultural Trade Policy, Commercial Market Relationships, and its Effects on the Level and Stability of World Prices"(paper presented at the International Agricultural Trade Research Consortium meeting, Airlie House, Va., December 16-18, 1982).

Laxer, James. 1986. *Leap of Faith: Free Trade and the Future of Canada*. Edmonton: Hurtig.

Lazar, Fred. 1981. *The New Protectionism: Non-Tariff Barriers and Their Effect on Canada*. Canadian Institute for Economic Policy: James Lorimer and Company.

Leamer, Edward E. 1984. *Sources of Comparative Advantage: Theory and Evidence*. Cambridge: MIT Press.

Lee, George, ed. 1984. *Future Prospects for World Agricultural Policies and Trade: Implications for Western Canada*. Proceedings of conference held in Saskatoon, November 1-2, 1984.

Lermer, G. 1973. "Evidence from Trade Data Regarding the Rationalizing of Canadian Industry." *Canadian Journal of Economics* 6, no. 2 (May).

Lerohl, M.L. n.d. "Canada-U.S. Free Trade in Grains: Implications for the Canadian Grain Industry." University of Alberta, Department of Rural Economy.

Lesueur-Brymer, Peggy. 1986. "Implications for the Alberta Grain Sector" in S. Peitchinis, ed., *Free Trade with the U.S.: Implications for Alberta and Canada*, 65-74.

Lilly, Wayne. 1986. "Canada's Lost Romance with Petrochemicals." *Globe and Mail Report on Business Magazine* (August): 50-54.

Lipsey, Richard G. and Murray G. Smith. 1985. *Taking the Initiative: Canada's Trade Options in a Turbulent World*. Toronto: C.D. Howe Institute.

Lipsey, Richard G. and Murray G. Smith, eds. 1986. *Policy Harmonization: The Effects of a Canadian-American Free Trade Area*. Toronto: C.D. Howe Institute.

Lithwick, N.H., ed. 1978. *Regional Economic Policy: The Canadian Experience*. Toronto: McGraw-Hill Ryerson Ltd.

Lyng, Richard E. 1985. "Enhancing Competitiveness: U.S. Agricultural Policy" in Federal Reserve Board of Kansas City, *Competiting in the World Marketplace*, 67-76.

Maciej, Hans. 1986. "Implications for the Petroleum Industry" in S. Peitchinis, ed., *Free Trade with the U.S.: Implications for Alberta and Canada*, 13-19.

Macintosh, Robert M. 1985. "International Trade in Services." Fourth International Retail Banking Conference, London, England, November 5, 1985.

Macmillan, K. 1985. *The Canadian Common Market: Interprovincial Trade and International Competitiveness.* Calgary: Canada West Foundation.

Macmillan, K. 1985. "International Trade: Problems and Prospects." Canada West Foundation.

Magun, Sunder. 1984. "The Effects of Technological Changes on the Labour Market in Canada" (presented to the Canadian Economics Association Meetings, Guelph, May 26-29, 1984).

Magun, Sunder. 1986. "The Effects of Canada-U.S. Free Trade on the Canadian Labour Market" (presented to the Canadian Economics Association Meetings, Winnipeg, May 29, 1986).

Magun, Sunder, S. Rao and Bimal Lodh. 1987. "Impact of Canada-U.S. Free Trade on the Canadian Economy." Economic Council of Canada Discussion Paper No. 331.

Markusen, James R. 1985. "Gains from Trade in the Presence of Scale Economies and Imperfect Competition" in J. Whalley, ed., *Canada-United States Free Trade*, 113-56.

Martin, Fernand. 1976. "Regional Aspects of the Evolution of Canadian Employment." Economic Council of Canada.

Matthews, Roy A. 1971. *Industrial Viability in a Free Trade Economy: A Program of Adjustment Policies for Canada.* Toronto: University of Toronto Press.

Matthews, Roy A. 1985. "Structural Change and Industrial Policy: The Redeployment of Canadian Manufacturing, 1960-1980." Economic Council of Canada.

McClatchy, D. and M. Cluff. 1986. "Developments in the Canadian Beef and Cattle Market During 1984." *Canadian Farm Economics* 20, no. 1: 19-27.

McFetridge, D.G., ed. 1985. *Economics of Industrial Policy and Strategy.* Research Study 5, Royal Commission on the Economic Union and Development Prospects for Canada.

McLachlan, D.M. 1985. "Discriminatory Public Procurement, Economic Integration and the Role of Bureaucracy." *Journal of Common Market Studies* 23, no. 4 (June).

Meilke, Karl D. and Jonathan R. Coleman. 1986. "Evaluation of the Influence of Exchange Rates on the Canadian Red Meat Sector." University of Guelph, Department of Agricultural Economics and Business.

Menzies, D.L. and B.E. Prentice. 1983. "Barriers to Trade in Agricultural Products Between Canada and the United States." USDA Staff Report, April 1983.

Merkin, William S. 1986. "The United States Perspective" in S. Peitchinis, ed., *Free Trade with the U.S.: Implications for Alberta and Canada*, 111-14.

Morici, Peter. 1984. *The Global Competitive Struggle: Challenges to the United States and Canada*. Toronto: C.D. Howe Institute.

Moroz, A.R. and Gregory J. Meredith. 1985. "Economic Effects of Trade Liberalization with the United States: Evidence and Questions." Institute for Research on Public Policy, Discussion Paper 8510, September, 1985.

Mulroney, Brian. 1986. "Notes for an Address to the Nation on the Trade Initiative, June 16, 1986."

National Farmers Union, Region 6. 1986. "Submission on the Subject of Canada-U.S. Trade Talks" (presented to Saskatchewan Trade Consultations, August 18, 1986).

National Farmers Union, Local 611. 1986. "Letter to Saskatchewan Trade Negotiations Secretariat."

Norrie, K. 1986. *Disparities and Interregional Adjustment*. Research Study 64, Royal Commission on the Economic Union and Development Prospects for Canada.

Norrie, K. and M. Percy. 1983. "Economic Rents, Province-Building and Interregional Adjustment: A Two-Region General Equilibrium Analysis." ECC Discussion Paper 230.

Ontario, Ministry of Industry and Trade. 1982. *Canadian Trade Policy for the 1980s — An Ontario Perspective*. Toronto: Ontario Government Queen's Printer.

Ontario, Ministry of Industry, Trade and Technology. 1985. "Assessment of Direct Employment Effects of Freer Trade for Ontario's Manufacturing Industries."

Ontario, Ministry of Treasury and Economics. 1986. "Ontario Study of the Service Sector."

Ontario Pork Producers Marketing Board. 1984. "Future of the Industry Study, Supplemental Information: Labour Rates."

Peitchinis, Stephen G. 1986. *Free Trade with the U.S.: Implications for Alberta and Canada*. Calgary: Proceedings of a conference organized by the Economic Society of Calgary and the Calgary Chamber of Commerce, February 27, 1986.

Petroleum Services Association of Canada. 1986. "Canada/U.S. Bilateral Trade Negotiations Presentation to the Saskatchewan Trade Negotiations Secretariat, July, 1986."

Phillips, Paul. 1985. "Free Trade and Agriculture — Salvation or Fantasy: Comments to the Conference of the National Farmers' Union, Edmonton, December 4, 1985."

Pigott, John and John Whalley, eds. 1985. *New Developments in Applied General Equilibrium Analysis*. London: Cambridge University Press.

Pinchin, Hugh M. 1979. *The Regional Impact of the Canadian Tariff*. Ottawa: Economic Council of Canada.

Pinchin, Hugh M. 1986. "A Framework for Assessing the Impact of Free Trade in North America" in William D. Shipman, ed., *Trade and Investment Across the Northeast Boundary: Quebec, the Atlantic Provinces and New England*. Montreal: Institute for Research on Public Policy, 85-140.

Porter, Robert H. 1984. "Tariff Policies in a Small Open Spatial Economy." *Canadian Journal of Economics* 17, no. 2 (May): 270-82.

Postner, Harry H. 1975. *Factor Content of Canadian International Trade: Input-Output Analysis*. Ottawa: Economic Council of Canada.

Postner, Harry H. and Leslie M. Wesa. 1985. "Employment Instability in Western Canada: A Diversification Analysis of the Manufacturing and Other Sections." Economic Council of Canada Discussion Paper 275.

PPG Industries. 1986. "Canadian-US Free Trade." Submission to the Saskatchewan Trade Secretariat.

Prairie Implement Manufacturers Association. 1986. "Presentation to the Saskatchewan Trade Negotiations Secretariat on the Subject of Bilateral Trade with the United States, August 13, 1986."

Public Service Alliance of Canada. 1986. "Submission to the Saskatchewan Government, Trade Negotiations Secretariat."

Rao, P.S. 1987. *U.S.-Canadian Productivity Gap, Scale Economies and the Gains From Free Trade*. Ottawa: Economic Council of Canada.

Reid, Angus and Associates, Inc. 1986. "Canadian Public Opinion and the Issue of Free Trade." *The Reid Report* 1, no. 2 (February).

Reisman, Simon. 1985. "Canada-U.S. Trade at the Crossroads: Options for Growth." *Canadian Business Review* (Autumn): 17-23.

Reisman, Simon. 1986. "Notes for Remarks to the Institute of Corporate Directors of Canada, Toronto, April 15, 1986."

Reisman, Simon. 1986. "Notes for Remarks to Canadian Federation of Labour, Ottawa, May 14, 1986."

Royal Commission on the Economic Union and Development Prospects in Canada (Macdonald Commission). 1985. *Report*. Ottawa: Government of Canada.

Rugman, A.M. 1981. *Inside the Multinationals: The Economics of Internal Markets*. New York: Columbia University Press.

Sarna, A.J. 1985. "The Impact of a Canada-U.S. Free Trade Area." *Journal of Common Market Studies* 23, no. 4: 299-318.

Saskatchewan Action Committee on the Status of Women. 1986. "Brief to the Saskatchewan Commission on Free Trade Talks Between Canada and the United States, July 25, 1986."

Saskatchewan Advanced Technology Management Association, Inc. 1986. "Presentation to the Saskatchewan Board of Special Trade Commissioners, August 19, 1986."

Saskatchewan Advisory Committee on the Status of Women. 1986. "The Impact of Free Trade on Saskatchewan Women" (brief to Trade Negotiations Secretariat Public Consultations on Free Trade, August, 1986).

Saskatchewan Association of Poultry Producers. 1986. "Canada-U.S. Free Trade" (presented to the Saskatchewan Trade Consultations, August, 1986).

Saskatchewan Chamber of Commerce. 1986. "Presentation to Saskatchewan Special Trade Commission, August 25, 1986."

Saskatchewan Commercial Egg Producers Marketing Board. 1986. "Brief on Free Trade Talks" (presented to the Saskatchewan Trade Consultations, August 27, 1986).

Saskatchewan Construction Association, Inc. 1986. "Submission re Canada-U.S. Trade to Board of Special Trade Commissioners."

Saskatchewan Council of Cultural Organizations. 1986. "A Brief on the Trade Negotiations Taking Place Between Canada and the United States of America."

Saskatchewan Federation of Labour. 1986. "Submission to the Trade Negotiations Secretariat, Government of Saskatchewan."

Saskatchewan Feed Manufacturers Association. 1986. "Presentation to the Saskatchewan Trade Negotiations Secretariat, August 20, 1986."

Saskatchewan Government Employees Union. 1986. "Brief on Free Trade to the Trade Negotiations Secretariat."

Saskatchewan Milk Producers Association. 1986. "Submission to the Saskatchewan Trade Consultations."

Saskatchewan Motion Picture Industry Association. 1986. "Brief to the Trade Negotiations Secretariat."

Saskatchewan Pork Producers Marketing Board. 1986. "Brief to: Board of Special Trade Commissioners."

Saskatchewan Potash Producers Association, Inc. 1986. "Free Trade and Saskatchewan Potash" (brief presented to the Government of Saskatchewan, August, 1986).

Saskatchewan Stock Growers' Association. 1986. "Recommendation to Saskatchewan's Trade Negotiations Secretariat, July 24, 1986."

Saskatchewan Trade Commissioners. 1987. *Final Report on the Saskatchewan Public Consultations on Trade Negotiations*. Regina: Saskatchewan Government.

Saskatchewan Trade Negotiations Secretariat. 1986. "Saskatchewan Backgrounder on Trade (Revised Edition)."

Saskatchewan Urban Municipalities Association. 1986. "Submission to Saskatchewan Trade Hearings, August, 1986."

Saunders, R.S. 1980. "The Determinants of Productivity in Canadian Manufacturing Industries." *Journal of Industrial Economics* 29, no. 2: 167-84.

Scarfe, Brian. 1986. "A Western Perspective on Canadian Trade Options." *Western Economic Review* 5, no. 1 (Spring).

Scherer, F.M. 1973. "The Determinants of Industrial Plant in Six Nations." *Review of Economics and Statistics.*

Schmidt, Erich. 1984. "European Community Agricultural Policy and Trade: Current Developments and Prospects" in George Lee, ed., *Future Prospects for World Agricultural Policies and Trade: Implications for Western Canada*, 12-43.

Schmitz, Andrew. 1984. "Prospects for Change in Livestock Production and Trade" in George Lee, ed., *Future Prospects for World Agricultural Policies and Trade: Implications for Western Canada*, 134-62.

Schmitz, Andrew and G.C. Van Kooten. 1986. "U.S. Canada Trade Agreement: Brief Submitted to Saskatchewan Committee on Canada-U.S. Trade Talks."

Schuh, G. Edward. 1984. "Structural Change in World Agricultural Trade: Present Conditions and Future Prospects" in George Lee, ed., *Future Prospects for World Agricultural Policies and Trade: Implications for Western Canada*, 1-11.

Shearer, R.A. 1986. "The New Face of Canadian Mercantilism: The Macdonald Commission and the Case for Free Trade." *Canadian Public Policy* 12 (Supplement): 51-58.

Shearer, R.A., J.H. Young and G.R. Munro. 1971. *Trade Liberalization and the Regional Economy: Studies of the Impact of Free Trade on British Columbia*. Toronto: University of Toronto Press.

Shipman, W.D., ed. 1986. *Trade and Investment Across the Northeast Boundary: Quebec, the Atlantic Provinces and New England*. Montreal: Institute for Research on Public Policy.

Smith, Murray G. 1986. "Closing a Trade Deal: The Provinces' Role." *C.D. Howe Institute Commentary* 11 (August).

"Special Report: The Hollow Corporation." *Businessweek*. March 3, 1986.

Srinivason, T.N. and John Whalley, eds. 1986. *General Equilibrium Trade Policy Modelling*. Cambridge: MIT Press.

The Standing Senate Committee on Foreign Affairs. 1978. *Canada-United States Relations, Vol. 2, Canada's Trade Relations with the United States*. Ottawa: Queen's Printer.

Statistics Canada. 1987. *Provincial Gross Domestic Product at Factor Cost for Selected Industries, 1971-84, Current and Constant (1981) Dollars* (November).

Steen, Issy (Sid's Sunflower Seeds). 1986. "Presentation to Saskatchewan Trade Consultations, August 28, 1986."

Stern, R.M., ed. 1986. *Trade and Investment in Services: Canada/U.S. Perspectives*. Toronto: Ontario Economic Council.

Stern, R.M., Phillip H. Trezise and John Whalley. 1987. "Perspectives on U.S.-Canada Free Trade." *Brookings Dialogues on Public Policy*, Washington.

Stone, Frank. 1984. *Canada, the GATT and the International Trade System*. Montreal: The Institute for Research on Public Policy.

Task Force on Canada-United States Trade Policy. 1985. "Canada-U.S. Trade Liberalization: An Agenda for Discussion."

Taylor, Allan R. 1986. "Speech to the Vancouver Board of Trade, April 28, 1986."

Thibault, J. Laurent. 1985. "Assessment of the Royal Commission Report on the Economic Union and Development Prospects for Canada." (Letter to the Right Honourable Brian Mulroney, November 11.)

Thomas, Ken (Native Economic Development Board). 1986. "Submission to Government of Saskatchewan on Canada/U.S. Trade Talks."

Tomlin, Brian W. and Maureen Malot, eds. 1985. *Canada Among Nations, 1984*. Toronto: James Lorimer and Company.

Traficante, F. 1985. "Arguments For and Against Bilateral Free Trade." Ontario Legislative Library.

Tremblay, Rodrigue. 1985. "The Regional Impact of Free Trade in Canada." *Canadian Journal of Regional Science* 8, no. 1.

Turk, Jim. 1986. *Free Trade with the United States: The Implications for Canada*. Ottawa: Canadian Centre for Policy Alternatives.

United Auto Workers, Canada. 1986. "Free Trade Could Cost Us Canada."

United Grain Growers' Ltd. 1986. "Negotiation Trade Peace: A Brief of Trade Policy" (presented to Saskatchewan Trade Consultations, August 28, 1986).

United States Department of State. 1986. *Protecting Prosperity from Protectionism.*

United Steelworkers of America. 1986. "Presentation to the Saskatchewan Committee on Free Trade."

Veeman, T. and M. Veeman. 1984. *The Future of Grain*. Toronto: James Lorimer and Company.

Wahl, Donald F. 1961. "Capital and Labour Requirements for Canada's Foreign Trade." *Canadian Journal of Economics and Political Science* 27, no. 3 (August).

Warley, T.K. 1985. "Issues in Canadian Agricultural Trade Policy" in J. Whalley, ed., *Canada-United States Free Trade*, 267-94.

Warley, T.K. 1986. "What Would Free Trade Mean to Agriculture?" (address at Southwestern Ontario Farmers' Week, Ridgetown College of Agricultural Technology, January 7, 1986).

Warley, T.K. and R.R. Barichello. 1985. "Agriculture in a Comprehensive Canada-U.S. Trade Agreement: A Canadian Perspective" in R. Lipsey and M. Smith, eds., *Policy Harmonization: The Effects of a Canadian-American Free Trade Area.*